

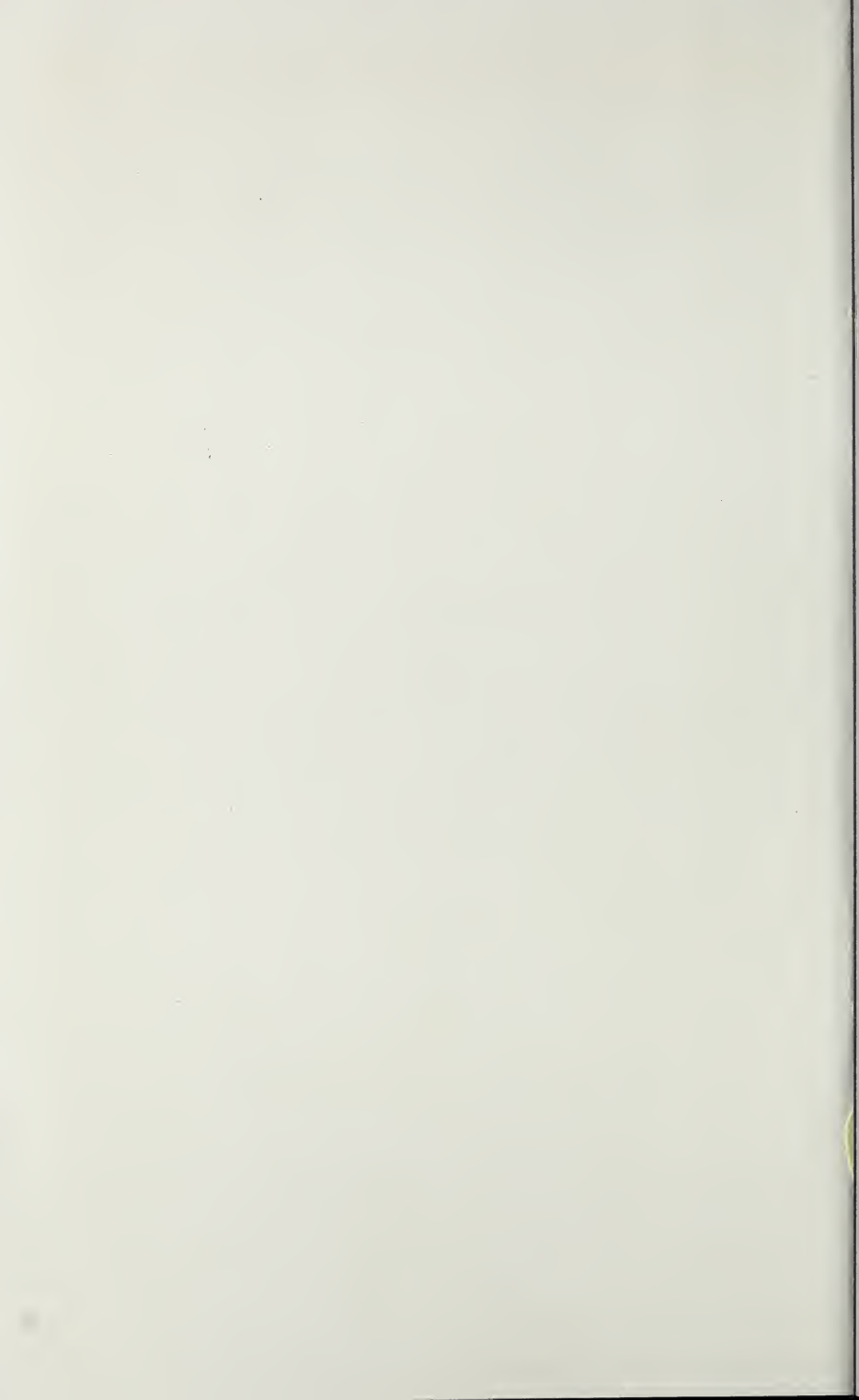
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The Military College of South Carolina

171 MOULTRIE STREET • CHARLESTON, SOUTH CAROLINA 29409



THE CITADEL[®]

**THE MILITARY COLLEGE OF SOUTH CAROLINA
CHARLESTON, S.C.**



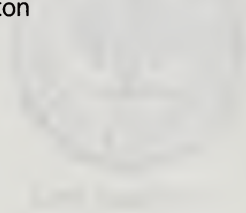
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**CATALOGUE ISSUE
1994 - 1995**

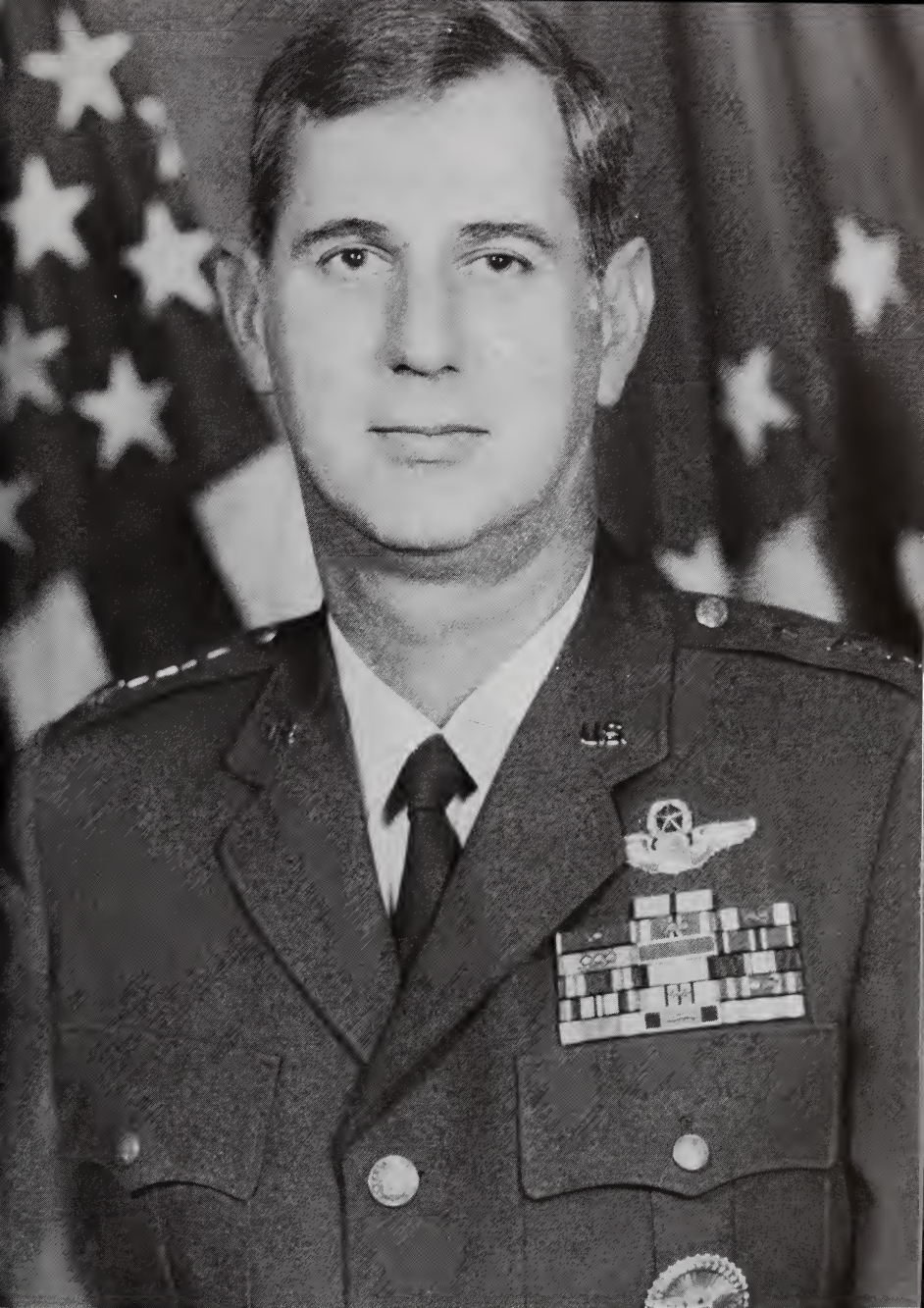
THE CLASSICAL

EDUCATION OF THE AMERICAN YOUTH
IN THE CLASSICAL

"I call, therefore, a complete and generous education that which fits a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war."—Milton



THE CLASSICAL
EDUCATION OF THE AMERICAN YOUTH
IN THE CLASSICAL



LIEUTENANT GENERAL CLAUDIUS E. WATTS III, USAF, RETIRED
President



BRIGADIER GENERAL R. CLIFTON POOLE, USAR
Vice President for Academic Affairs and Dean of the College

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1994-1995 COLLEGE CALENDAR

1994 — Fall Calendar

August 1, Monday	Athletic cadre reports; 0900 muster
August 5, Friday	Freshman athletes who have received prior notice report; 1300 muster
August 8, Monday	Cadre reports; 1300 muster
August 14, Sunday	Freshman Band Prospects report; 1200 muster
August 15, Monday	New cadets report; Department Heads return
August 16, Tuesday	All Faculty returns
August 17, Wednesday	Drop/Add and Advising for Freshman Cadets (0830-1200 Faculty Offices)
August 19, Friday	Departmental Meetings in Preparation for Upperclass Advising (0830-1000)
August 21, Sunday	Upperclass cadets report; 1600 muster
August 22, Monday	Military Activities Day; Classes for the College of Graduate and Professional Studies begin
August 23, Tuesday	Drop/Add for Day Program (0830-1700 Faculty Offices)
August 24, Wednesday	Cadet Leadership Training Day
August 25, Thursday	Day Program classes begin
September 5, Monday	Labor Day; Day Program Classes as scheduled; NO CLASSES WILL BE HELD IN THE COLLEGE OF GRADUATE AND PROFESSIONAL STUDIES
October 8, Saturday	Parents' Day (East Tennessee State)
October 12, Wednesday	Mid-term grading period ends
October 14, Friday	Cadet Leadership Training Day; NO DAY CLASSES WILL BE HELD
October 20, Thursday	Last day to withdraw from a course with the grade of "W"
November 8, Tuesday	Election Day; NO CLASSES WILL BE HELD
November 19, Saturday	Homecoming (Georgia Southern)
November 22, Tuesday	Thanksgiving Furlough for Corps of Cadets begins at 1500; Thanksgiving Break for the College of Graduate and Professional Studies begins after last class
November 27, Sunday	Thanksgiving Furlough for Corps of Cadets ends; 2230 muster
November 28, Monday	All classes resume
December 1, Thursday	Classes for the College of Graduate and Professional Studies end after last class
December 5, Monday	Examinations for the College of Graduate and Professional Studies begin
December 7, Wednesday	Day Program classes end after last class
December 8, Thursday	Day Program Reading Day; Graduate examinations end
December 9, Friday	Day Program examinations begin
December 13, Tuesday	College of Graduate and Professional Studies undergraduate examinations end
December 16, Friday	Day Program examinations end; Christmas leave begins

1995 — Spring Semester

January 2, Monday	Registration resumes for the College of Graduate and Professional Studies
January 8, Sunday	Christmas leave ends; 2230 muster
January 9, Monday	Military Activities Day
January 10, Tuesday	Drop/Add for Day Program
January 11, Wednesday	Cadet Leadership Training Day; Classes begin for the College of Graduate and Professional Studies
January 12, Thursday	Day Program classes begin
January 20, Friday	Last day to add a course or change sections
March 1, Wednesday	Mid-term grading period ends
March 3, Friday	Cadet Leadership Training Day; NO DAY CLASSES WILL BE HELD
March 9, Thursday	Last day to withdraw from a course with a grade of "W"
March 18, Saturday	Corps Day
March 21, Tuesday	Spring Furlough for Corps of Cadets begins at 1500; Spring Break for the College of Graduate and Professional Studies begins after last scheduled class
March 26, Sunday	Spring Furlough for Corps of Cadets ends; 2230 muster
March 27, Monday	All classes resume
April 14, Friday	Good Friday (No Special Leave; Services will be held on campus)
April 20, Thursday	Classes for the College of Graduate and Professional Studies end after last class
April 24, Monday	Examinations for the College of Graduate and Professional Studies begin
April 27, Thursday	Graduate examinations end
April 28, Friday	Day Program classes end after the last class
May 1, Monday	Day Program examinations begin
May 2, Tuesday	College of Graduate and Professional Studies undergraduate examinations end
May 9, Tuesday	Day Program examinations end
May 10, Wednesday	Commencement for the College of Graduate and Professional Studies
May 13, Saturday	Commencement for the Corps of Cadets; Summer Furlough begins
June 5, Monday	Summer Session I begins; Summer Evening begins
July 7, Friday	Summer Session I ends
July 10, Monday	Summer Session II begins
July 20, Thursday	Summer Evening ends
August 11, Friday	Summer Session II ends



CIRCA 1919. Citadel cadets study in library of the Old Citadel on Marion Square.



December 23, 1892. Corps of Cadets on the quadrangle of the Old Citadel on Marion Square.

History Of The Citadel

The Old Location and the New

From December 20, 1842, when the legislature of South Carolina passed an act providing for the establishment of The Citadel, to September 1922, the college was located on Marion Square. Since 1922, The Citadel has been situated on a beautiful campus between Hampton Park and the Ashley River.

The Origin of the Name

The Citadel derived its name from the building in which it was first housed. Erected as a state arsenal after the Denmark Vesey slave uprising in 1822, this sturdy old fortress, which still dominates Marion Square, was called The Citadel. It was garrisoned by Federal troops, then by state troops, until they were replaced in March 1843 by 20 students who comprised the first Corps of Cadets. The cadets served as guards for the state's arms and pursued a course of study designed to make them useful citizens in time of peace as well as war. The Arsenal, established at the same time in Columbia, and The Citadel were known as the South Carolina Military Academy. In 1845, regulations governing the institution subordinated The Arsenal to The Citadel, and thereafter, The Arsenal trained only freshmen. The Arsenal burned in 1865 and was never reopened.

The Citadel in the Civil War

The Founders—men like General D. F. Jamison, who later presided over the convention at which the Ordinance of Secession was signed, and Governors J. P. Richardson and J. H. Hammond—had foreseen that the state would need men with military training. When trouble between the North and South erupted in war, the record of Citadel alumni and cadets vindicated the foresight of the founders. Of the 224 alumni living at the time of the Civil War, 209 wore the Confederate gray, all but 20 as commissioned officers and four as generals. Forty-nine Citadel men were killed in battle.

On January 9, 1861—before the firing on Fort Sumter—cadets of the Corps manned the guns which drove back from the entrance of Charleston Harbor the *Star of the West*, a steamer sent by the Federal Government to relieve the fort.

Made a part of the military organization of the state by legislative act of January 28, 1861, the Corps of Cadets helped emplace and guard artillery on James Island, performed guard duty in Charleston, and on December 7 and 9, 1864, suffered several casualties in engagements with Union troops at Tulifinny Creek near Yemassee Station.

From February 18, 1865, when a Union force marched into Charleston, until April 1879, the buildings on Marion Square were occupied by Federal troops, and the operation of the college was suspended.

The Reopening After the Civil War

The Citadel reopened on October 2, 1882, with an enrollment of 185 cadets. Though the Corps no longer served as arsenal guard, the military system of the antebellum years was continued.

In 1910 the name of the college was changed to The Citadel, The Military College of South Carolina. During the administration of Mayor T. T. Hyde, the City Council of Charleston gave the state the present site of the college in 1918. In the fall of 1922, the college began operating at its new location.

The Student Body

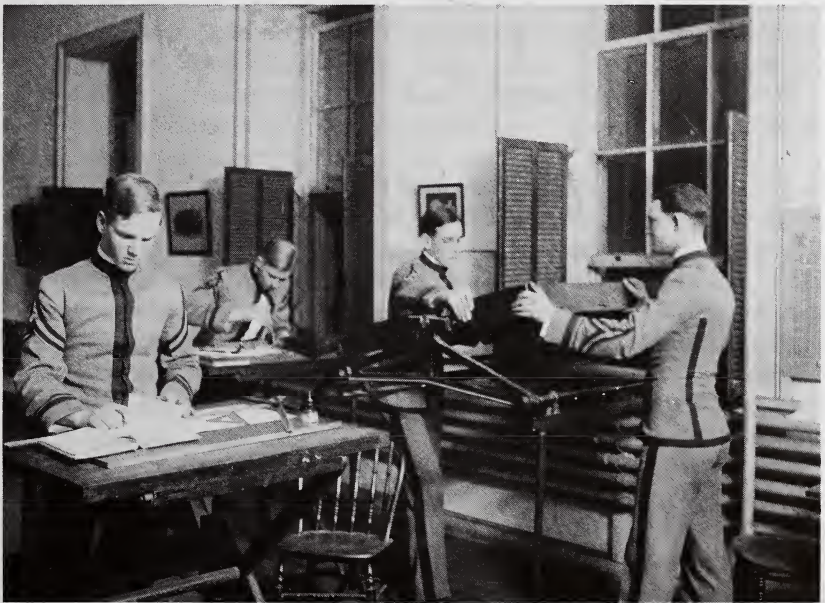
In 1864 there were 145 cadets in the Corps. When the move to the new campus was made, there were almost 300 cadets. In 1947-48, 2,271 students were enrolled, including cadets and veterans. Nearly 3,500 veterans of World War II and the Korean Conflict, most of whom were civilian students, attended the college under the G.I. Bill. That Citadel program for veterans ended in 1960 but was resumed in 1967. The veterans' civilian day program was terminated in 1992, and no civilian students attend classes with the Corps of Cadets which maintains a strength of approximately 2,000 cadets. The Citadel Evening College is a coeducational environment which has offered Undergraduate Programs since 1966 and Graduate Programs since 1968. These programs serve nearly 1,900 citizens from the Charleston area. In addition, The Citadel offers a coeducational Summer Program.

Approximately 350 Citadel graduates served in the armed forces in World War I, and 15 were killed. About 6,000 alumni were on active service in World War II. Of these alumni, 280 died for their country. Some 1,500 were on active duty during the Korean Conflict; 450 were in combat, and 32 gave their lives. Sixty-eight made the supreme sacrifice in the Vietnam War. One graduate was killed in Lebanon combat in late 1983, another in the invasion of Grenada, and one in Iraq. Citadel graduates served in positions of responsibility in the Middle East area. Virtually all graduates on active duty have served as commissioned officers.

Archives and Museum

The Archives contains manuscript material, photographs, and films pertaining to The Citadel. In 1966, General Mark W. Clark donated his personal, military, and official papers covering his career in World War II, the Austrian Occupation, the Korean War, and presidency of The Citadel. Other notable collections include the papers of Pulitzer Prize winning historian, Bruce Catton; the Civil War letters of General Ellison Capers, Citadel class of 1857; and the papers of Vice Admiral Friedrich Ruge, who was Rommel's naval advisor. Authors and scholars from the United States and Europe frequently visit the Archives to research the collections.

The Museum contains exhibits which trace the history of The Citadel from 1842 to the present and feature the military, academic, social, and athletic aspects of cadet life. Citadel rings from 1895 to the present are exhibited. Citadel graduates who lost their lives in World War II, Korea, Vietnam, Lebanon, Grenada, and Iraq are memorialized in photograph albums which are on display in the Museum.



Mechanical or Engineering drawing class at The "Old" Citadel, 1910.

General Information

Accreditation

The Citadel is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award Bachelor's, Master's, and Specialist degrees. Civil Engineering and Electrical Engineering Programs offered through the Day Program are accredited by the Engineering Accreditation Commission/Accreditation Board for Engineering and Technology.

Programs for the preparation of secondary teachers at the bachelor's level, for the preparation of secondary and special education teachers at the master's level, for the preparation of guidance counselors at the master's and specialist degree levels, and for the preparation of school superintendents at the specialist degree level are accredited by the National Council for Accreditation of Teacher Education. The head of the Department of Education serves as the Director of Teacher Education.

The Department of Chemistry is accredited by the American Chemical Society.

The Mission of The Citadel

The primary mission of The Citadel, the Military College of South Carolina, is to educate male undergraduates as members of the South Carolina Corps of Cadets and to prepare them for post-graduate positions of leadership through academic programs of recognized excellence supported by the best features of a disciplined military environment. It is also the mission of The Citadel to serve the citizens of the Low Country and the state of South Carolina through its Evening College, graduate programs, and a broad range of non-instructional activities and services.

The Citadel provides a quality education through extensive grounding in liberal arts and sciences in a military college atmosphere which challenges students, faculty, and staff to achieve excellence. The College will continue to emphasize undergraduate education through a wide range of baccalaureate degree programs in the humanities, social and natural sciences, and several professional fields. It promotes an environment which nourishes innovative teaching, inspires students to learn, stimulates research and inquiry, and strengthens intel-

lectual and personal relationships between students and teachers. The Citadel produces graduates who (a) have insight into the fundamental issues, ideas, and values of importance to a society; (b) can apply such insights toward understanding current issues and problems in a regional, national, and global context; (c) have understanding of the methodological skills needed to gather and analyze information; (d) possess both critical and creative thinking abilities; (e) have effective communication skills; (f) can apply abstract concepts to concrete situations; (g) can make decisions based on a clear, well developed value structure; and (h) demonstrate an intellectual curiosity and discipline consistent with an embrace of lifelong learning.

The Citadel links students, faculty, and staff together in a special community. It joins military and academic spheres into a common realm, at the same time striving to maintain between the two a balance to nourish and enrich the personal, professional, and educational growth of each individual. This sense of community is fostered further by engaging faculty, staff, alumni, and friends in advancing the interests of the College and by observing high standards of social responsibility, including equal employment opportunity and affirmative action.

The Citadel supports equality of opportunity and freedom of choice within a diverse system of higher education through which each student can reach his or her educational objectives. In accomplishing its mission, The Citadel is guided by the following goals:

- a. to maintain and strengthen the unique military framework and environment of the college in its service to state and nation;
- b. to meet the needs of the South Carolina Low Country in terms of instruction, public service, and research;
- c. to enhance the intellectual atmosphere and learning environment for students, faculty, and staff;
- d. to provide the support, environment, and resources for the economic, intellectual, and professional advancement of the faculty and staff;
- e. to establish institutional mechanisms to meet requirements of the Southern Association of Colleges and Schools and the South Carolina Commission on Higher Education for long-range strategic planning and assessment;
- f. to achieve excellence in all academic, extracurricular, and intercollegiate programs.

The Purpose of The Citadel's Military Environment

The Citadel seeks to provide the best qualities of a military and disciplined environment to support the growth and development of character, physical fitness, and moral and spiritual principles, thereby preparing its students to meet the requirements of citizens and especially of leaders. From the first year, with the Fourth Class System, through the senior year, the military environment

requires additional duties and responsibilities not normally found on a college campus.

The military environment at The Citadel also attempts to draw out and cultivate such values as truth, honor, integrity, and courage. Gentlemanly qualities are stressed, and excellence in military bearing and appearance is taught. Whether in military or civilian life, the testimony of the value of this institution in service to the Nation, State, and local communities is prominent.



Requirements for Admission

The Citadel gives equal consideration to all applicants who meet the personal, physical, and educational requirements for admission to the Corps of Cadets. The Citadel seeks to enroll well-rounded, mature students whose motivation and educational achievements indicate that they are prepared to do college level work with a reasonable probability of success. Therefore, admissions decisions are based on an overall evaluation of the following:

a. *High School Record* (courses, grades, class standing). The high school record provides insight into an applicant's motivation, study habits, and scope of interest. Particular attention is given to grades earned in English, mathematics, science, history, and foreign languages. To be eligible for admission, the student must have earned a cumulative grade point ratio (GPR) of at least 2.00 on a 4.00 scale.

b. *College Entrance Examination Board Test Scores*. Considerable emphasis is placed on an applicant's test scores on the College Entrance Examination Board's Scholastic Aptitude Test. Although this test score represents only one factor in the determination of an applicant's acceptability, it tends to indicate his educational development with respect to his contemporaries; therefore, the SAT score provides a reasonable evaluation of actual preparedness and potential to do college level work. Students whose SAT score is less than 800 or ACT score is less than 19 will not normally be considered for admission.

c. *Recommendations*. The personal evaluation of an applicant by a high school official, normally the principal or the guidance counselor, must include a positive statement that the applicant is prepared, academically and emotionally, to enter college. This recommendation is given considerable weight in the acceptance decision because it represents judgments on ability and maturity which are derived from actual experience with, and observation of, the applicant during his most formative years. The recommendations of an applicant's personal references augment and reinforce the high school official's evaluation and are indispensable. They provide information relative to the applicant's background, personal characteristics, and reputation. Additional judgements concerning stability and readiness to enter college are also provided.

In general, The Citadel seeks to determine acceptability through a thorough evaluation of each applicant's character, maturity, motivation, readiness for college, amenability to a regimented life style, emotional stability, and potential to contribute to cadet life. Where any of these factors are in question, the college may obtain additional information by means of interviews with the applicant, his parents, or members of his community. If it is deemed necessary, The Citadel may request that the applicant present a written report on such subjects as his goals in life, his reasons for choosing The Citadel, or his reasons for choosing a particular major field of study.

Initial Acceptance and Withdrawals

New cadets are admitted to the Corps of Cadets only in the first semester of the school year but may commence their academic work in the preceding summer.

If a cadet finds it necessary to withdraw from The Citadel during the college year or does not wish to return to The Citadel in August following any college year, a written request for an honorable discharge must be sent to the registrar.

Admission Procedure

Formal application for admission must be made by the applicant. An application form should be requested from the Office of Admissions, The Citadel, Charleston, South Carolina 29409. The Citadel admits freshmen into the South Carolina Corps of Cadets only in the fall semester of each year.

A non-refundable application fee of \$25 must accompany each application. Applications for admission should be submitted early in the prospective cadet's senior year in high school. In addition, the applicant should make early arrangements to take the SAT or ACT test and have these test scores sent to The Citadel. He is also responsible for having his high school transcript sent directly from his high school to The Citadel's Office of Admissions.

The Citadel will advise the applicant of subsequent procedural actions as they are necessary.

A reservation fee of \$150 (payable within 30 days after notification of acceptance) is required of all new cadets accepted for enrollment. This reservation fee will be applied toward the first installment of regular college fees; it is not refundable to those students who cancel their reservations after June 1.

Each applicant must undergo a thorough medical examination. Acceptance is contingent upon the results of this test, which must be received no later than 15 May. Only The Citadel's forms, which are provided by the Office of Admissions, may be used to report these results. The medical examination form shows the immunizations required by The Citadel.

Personal Requirements

Applicants to the South Carolina Corps of Cadets must be male, at least five feet in height, and physically qualified for military training as determined by the college physician. Should an accident, injury, or serious illness in any way change the physical status of the applicant after his acceptance but prior to arrival on campus, the college physician must be informed immediately. Any physical impairment could result in cancellation or postponement of admission. In addition, an applicant must meet the following personal requirements:

- a. An applicant must be at least 16 and less than 22 years of age on day of matriculation at The Citadel.
- b. An applicant may not be married. (No married person will be admitted as a cadet. If a cadet marries, he will be discharged immediately.)
- c. An applicant must not have a record of conviction of a criminal offense showing poor moral character.
- d. An applicant must provide evidence from his school authorities and personal references that he is of good moral character and possesses the potential and the personality to conform to the ethical standards and the strict regimentation of cadet life.

High School Course Requirements

An applicant for admission to The Citadel must be a graduate of an accredited high school or have satisfactorily completed the General Education Development (GED) examination. By this, the basic requirements for admission to the college comply with standards prescribed by the Southern Association of Colleges and Schools.

Those secondary school subjects which are required are as follows:

Area	Units	
English	4	At least two having strong grammar and composition, at least one in English literature, and at least one in American literature.
Mathematics	3	Two units must be algebra I and algebra II. For applicants who plan to major in mathematics, computer science, chemistry, physics, or engineering, the third unit must be plane geometry. Applicants who plan to pursue one of these majors and who have not completed at least one-half unit of trigonometry will be required to complete MATH 119 with a grade of C or higher prior to enrolling in calculus.

Laboratory Science	2	At least one unit each of two laboratory sciences chosen from biology, chemistry, or physics; a third unit of a laboratory science is strongly recommended.
Foreign Language	2	Two units of the same foreign language.
Additional Social Studies	2	Half units each of economics and government are strongly recommended.
Other	1	One unit of advanced mathematics or computer science or a combination of these; or one unit of world history, world geography, or western civilization.
U.S. History	1	
Physical Education or ROTC	1	

Prior to entering The Citadel as a freshman, each applicant should take steps to address any weaknesses in preparation in English or mathematics. The Citadel offers courses in these areas during each summer. Because of the widespread use of micro-computers on campus, typing skills are recommended for incoming students.

The Citadel's Policy on Testing for Illegal Drugs

The Citadel has a clear and unwavering policy of "Zero Tolerance" for drugs. Whether on campus or off, the possession, solicitation, distribution, sale, or use of hallucinogenic, narcotic, other controlled drugs or substances, or any drug paraphernalia, except in accordance with a legal prescription for such substance; drug, or paraphernalia for the student possessing or using it, will result in expulsion. This policy does not permit cadets to tolerate these actions by fellow cadets. In support of this policy, The Citadel reserves the right to test members of the Corps of Cadets periodically for the presence of illegal drugs and other controlled substances. Agreeing to participate in this program of testing for drugs is a condition of acceptance at The Citadel. Refusal to participate in this testing may lead to expulsion from the college.

Mathematics Placement

A student pursuing a B.S. degree in any of the fields of chemistry, computer science, engineering, mathematics, or physics must begin mathematics at The Citadel with MATH 131 (Analytic Geometry and Calculus I). Admission to MATH 131 is permitted as follows:

a. The student may earn a sufficiently high score on the mathematics portion of the SAT. This test score and the student's background in mathematics are subject to review by the Department of Mathematics and Computer Science.

b. The student may complete MATH 119 (College Algebra and Trigonometry) with a grade of C or higher. Each student whose planned major requires calculus (MATH 131) will be tested by the Department of Mathematics and Computer Science during the first week of classes. **Those students whose backgrounds do not include trigonometry will, without exception, be placed in MATH 119.** Other students whose preparations in algebra and/or trigonometry are determined to be inadequate will also be required to complete this course.

In all cases, final determination of qualification rests with the head of the Department of Mathematics and Computer Science.

English Placement

The Department of English is responsible for the proper placement of students in freshman English courses. In determining placement, the department uses scores earned on the verbal portion of the Scholastic Aptitude Test (SAT), as well as results of the department's own writing test, administered each fall prior to the beginning of academic classes. Students who qualify are awarded Pass/Fail credit for ENGL 101. Students are not normally permitted to bypass both ENGL 101 and 102. Students who elect to complete courses they have been authorized to bypass must take these courses on a Pass/Fail basis.

Language Placement

Students pursuing any major other than Civil or Electrical Engineering, Education, or the Teaching Track in Physical Education must complete four semesters of the same foreign language. The Department of Modern Languages is responsible for the proper placement of students in all language courses. In determining placement, the department considers the student's past classroom and extramural language experience as well as results of the department's own written and oral tests, administered each fall prior to the beginning of academic classes.

Pass/Fail credit will be awarded for 101, 102, 201, and 202 French, German, or Spanish only if the Department of Modern Languages has determined that previous classroom experience warrants and if the student in question has successfully completed the next course in the same language at The Citadel or has transferred the appropriate course to The Citadel.

The language facility of students whose previous foreign language classroom work is in a foreign language other than French, German, or Spanish or whose foreign language training is experiential, will be evaluated by the Department of Modern Languages. Based on the recommendation of that department, these students may bypass all or part of the Foreign Language Requirement. For those who have had experiential training, bypassed courses must be replaced by elective courses. Students who elect to complete courses they have been authorized to bypass must take these courses on a Pass/Fail basis.

Entrance Examinations

All applicants for admission to The Citadel are required to take the College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Testing (ACT) Academic Admissions Tests.

If an applicant lists The Citadel on his College Entrance Examination Board application as one of the colleges in which he is interested, his test scores will be sent to The Citadel approximately 30 days after the tests are taken. An applicant should complete the required entrance examinations no later than February.

Students from a foreign country whose native language is not English must receive satisfactory scores on the Test of English as a Foreign Language (TOEFL). The TOEFL is prepared and administered by the Educational Testing Service of the College Entrance Examination Board and must be taken no later than March 1 of the spring preceding admission. Foreign students whose English language facility is judged to be less than adequate will be required to complete MLNG 100, "English as a Second Language," as a prerequisite to ENGL 101.

In order to apply for these tests, the applicant must write directly to College Entrance Examination Board, ATP, Box 6155, Princeton, N.J. 08540. These tests are normally offered four times each year (usually in September, November, February, and May) at locations throughout the United States and in some foreign countries. An application to take these tests must be submitted to the College Entrance Examination Board at least one month prior to the date of desired testing.

Transfer Student Admissions

A student who is applying for admission to the Corps of Cadets as a transfer student from another accredited college or university must have an official transcript sent directly from that college or university to the Admissions Office of The Citadel. It is the responsibility of the entering student to have his transcript sent to The Citadel. In addition to all the requirements listed above for cadet admission, the transfer student's academic record at his current college or university must meet certain standards.

Transfer students must complete a full year in the Fourth Class System regardless of the number of academic credits transferred to The Citadel.

CEEB Advanced Placement Program

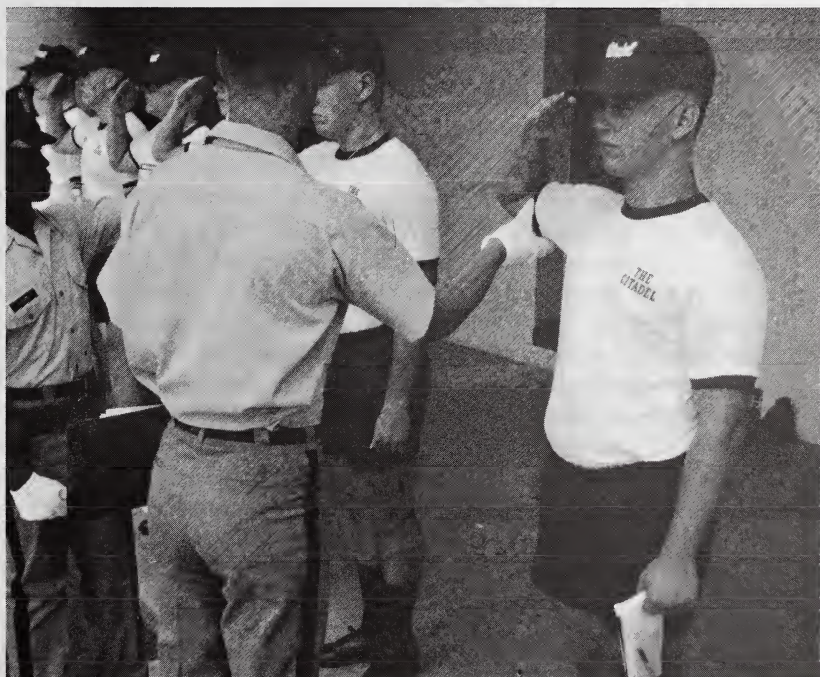
The Citadel awards advanced placement credit to applicants who score three (3) or higher on appropriate examinations. Applicants desiring Advanced Placement credits must have the official score report form sent directly to The Citadel from CEEB. A complete listing of The Citadel's courses that may be completed through Advanced Placement credit may be obtained by contacting the Registrar's Office.

College Level Examination Program

The Citadel also awards credit through CLEP Subject Examinations as provided by the Council on College-Level Examinations of the College Entrance Examination Board. The following conditions must be met:

1. The score must be equal to or above the mean score achieved by students on the national norm sample who earned a grade of "C" in a regular college course on the subject.
2. The amount of credit to be awarded will be determined by the scope of material measured, i.e., one or two semesters.
3. Credit will be awarded only for those subject examinations for which there are equivalent courses at The Citadel.
4. No student will be permitted to acquire more than 30 semester credit hours through CLEP Subject Examinations.
5. Students will not be granted credit through CLEP for any course previously taken at The Citadel, whether passed or failed, either for credit or audit.

A complete listing of courses that may be completed through CLEP may be obtained by contacting the Registrar's Office.



Academic Policies

Any exceptions to policies stated in this catalogue, purported to have been made verbally to a student by an official of the college, are null or void unless documented with a signed statement from the college official.

A curriculum or graduation requirement, if altered, is not normally made retroactive unless the alteration is to the student's advantage or is in the best interest of an academic major and can be accommodated within the span of years normally required for graduation. Should a requirement be made retroactive, ample warning will be given in writing.

Grades

Only letter grades are given to evaluate a student's progress. The following definitions of letter grades are applicable:

1. "A" represents superior attainment on the part of the student.
2. "B" represents work that is clearly above the average, but not superior.
3. "C" represents average attainment of the basic standards set for the course.
4. "D" represents a minimum attainment of the basic standards.
5. "F" represents failure.
6. "W" represents withdrawal from a course prior to the official deadline which is indicated in the college calendar and is no earlier than the Wednesday following the mid-term grading period. Beyond that point, the student will receive the grade of "F" should he fail to complete the course or complete it unsuccessfully. Under extenuating circumstances, the grade of "W" may be awarded after the established deadline to withdraw from a course. Such an action is taken only upon the recommendation of the instructor and requires the concurrence of the Dean of Undergraduate Studies. Supporting evidence is the responsibility of the student and must be submitted in writing to the Dean of Undergraduate Studies.
7. The notation of "I" (for Incomplete) is used in instances when course requirements have been very nearly met but for authorized reasons (illness, injury, family emergency, etc.) cannot be completed during the current semester. To be eligible for the grade of "I," the student's work must be satisfactory at the time he is forced to terminate his participation in the course. Unsatisfactory work will result in a failing grade. The grade of "I" must be cleared during the next semester in residence or within one year, whichever comes first, or the "I" becomes an "F." The summer session

will not be considered a semester in this case. A student may not officially enroll in a course in which he currently has an "I." An extension of time due to extenuating circumstances may be authorized by the Dean of Undergraduate Studies upon the recommendation of the instructor. The removal of the incomplete is the responsibility of the student.

Should a student fail to complete a semester or summer session for any reason, the grade in each course in which the student is then enrolled shall be "F," "I," or "W" as determined by the individual faculty member in consultation with the Dean of Undergraduate Studies.

No numerical symbol, bracket, or percentage is assigned the equivalent of any grade. Arbitrary distribution of grades according to some formula or curve is not permitted. However, by means of departmental supervision and consultation between instructors, every effort is made to obtain consistent grading standards within the department.

Students are expected to use proper grammar in all their course work, whether written or oral. Proper usage is expected at the college-level and is required by all professors.

Any change of grade deemed necessary by the faculty member concerned must be made within one month after the beginning of the next semester in attendance following the recording of the grade. In no case will a grade be changed after one month into the second semester after it was awarded. The summer session will not be considered a semester in this case. After grades in a course have been submitted to the Registrar's Office, every request for a change of grade must be approved by the head of the academic department involved and the Dean of Undergraduate Studies.

Grade reports are provided at the end of each semester and summer session. Mid-term progress reports are made available to show the status of the student's academic work for the fall and spring semesters.

Grade-Point Ratio Computation

For purposes of ascertaining a grade-point ratio, grades are weighted as follows:

Grade	Quality-Points Per Semester Hour
A	4
B	3
C	2
D	1
F, I, W	0

The grade-point ratio for any semester is determined by dividing the total number of quality points or grade points earned by the total number of hours for which the following grades were received: A, B, C, D, or F.

The cumulative grade-point ratio on which graduation, academic probation, and academic discharge are based is determined by dividing the number of quality points earned at The Citadel by the number of quality hours attempted at The Citadel. The number of quality hours for this purpose includes *all credit hours attempted* at The Citadel for which the following grades were received: A, B, C, D, or F. The number of quality points earned includes *all* quality points associated with quality hours earned at The Citadel. The Citadel does not recognize plus and minus grades,

Taking or Repeating Courses to Improve the GPR

A student may not take a course which is taught at a lower level than or serves as a prerequisite for, a course which is required in the student's major course of study.

Courses may be repeated under the following conditions:

1. Once passed, no course may be repeated for credit more than once.
2. Prior approval of the faculty advisor is required when a course is repeated.
3. No course may be repeated once a grade of "B" or higher has been earned.
4. Both the department head and the faculty advisor must approve the repeating of a course which is required in the student's major. No 100- or 200-level course required in the student's major may be repeated after it has been used as a prerequisite for other courses taken within the major.
5. For courses in which a grade of "C" or higher is required, the "passing grade" is considered to be "C." Therefore, these courses may be repeated until a grade of "C" is earned and then may be repeated only once more to improve the GPR.
6. If a course is repeated, the last grade of record is used to determine whether course requirements for graduation have been met.
7. If a previously passed course is repeated, the hours may be used only once toward meeting requirements for hours passed.

Transfer Credits

Only courses which are comparable in content and credit hours to specific courses offered by The Citadel and in which grades of "C" or better have been earned at an accredited institution will be considered for transfer. *Course work taken at another college and accepted for transfer by The Citadel need not be applicable to a student's major.* Courses transferred from another college will not be noted in the student's grade-point ratio at The Citadel. All transcripts sent from another college to The Citadel become the property of The Citadel and cannot be issued to the student or a third party.

To ensure that courses taken away from The Citadel will be accepted for transfer, students *must* obtain written, prior approval through the Office of the Regis-

trar. Courses previously passed at The Citadel will not be accepted for transfer.

All transfer credits are provisional. If a department determines within a reasonable period of time after classes begin that the student is not prepared to take a course for which the course transferred is a prerequisite, the allowance of credit is withdrawn, and the student must take the prerequisite course at The Citadel.

Catalogue of Record

The catalogue bearing the number of the academic year in which a cadet enters The Citadel will be his catalogue of record for matters of academic policy.

When a cadet is readmitted after an absence of at least three academic semesters (summer sessions will not be considered as semesters for this purpose), the catalogue bearing the number of the academic year in which the student is readmitted will be his catalogue of record for matters of academic policy and graduation requirements.

Degrees

The degree of Bachelor of Arts is conferred upon satisfactory completion of the appropriate Chemistry, English, French, German, History, Mathematics, Political Science, Psychology, or Spanish program of study. The Bachelor of Science is conferred upon satisfactory completion of the appropriate Biology, Chemistry, Computer Science, Education, Mathematics, Physical Education, or Physics program of study.

The degree of Bachelor of Science in Business Administration is awarded to students who complete satisfactorily the program in Business Administration.

Graduates in Civil Engineering receive the degree of Bachelor of Science in Civil Engineering. Graduates in Electrical Engineering receive the degree of Bachelor of Science in Electrical Engineering.

Requirements for Graduation

For graduation, a student must complete one of the departmental major courses of study stated in his catalogue of record and must achieve a minimum grade-point ratio of 2.000 based on all quality hours attempted and all quality points earned at The Citadel. For students majoring in Education or the teaching track of Physical Education, an overall grade-point ratio of 2.500 is required. In addition, each student, regardless of major, must achieve a minimum grade-point ratio of 2.000 based on all quality hours attempted and all quality points earned in major course work at The Citadel.

To be eligible for graduation, all students, including transfer students from other colleges, are required to earn at The Citadel a minimum of one-half the

semester hours prescribed for their major course of study.

Candidates for degrees who have met overall grade-point ratio and major course work grade-point ratio requirements but who have not completed all course requirements for graduation may take not more than two approved courses, totaling no more than 7 semester hours, at another institution for transfer to The Citadel in order to complete degree requirements. Prior approval of these courses by the department head concerned is mandatory. Any exceptions to this rule must be approved by the appropriate department head and the Dean of Undergraduate Studies.

In addition to the formal academic credits required for graduation, the candidate must have satisfied all disciplinary requirements. Recommendations for graduation are made by the Academic Board to the Board of Visitors, which in turn awards appropriate degrees.

Combining Courses

Courses may be combined to meet *elective credit* requirements under the following circumstances:

1. Each course to be combined (a lecture course, or a lecture and its associated laboratory) must carry at least 3 hours credit.
2. The courses to be combined must all be offered by the same department.
3. Prior approval of the head of the department in which the student is majoring and the Dean of Undergraduate Studies must be obtained.
4. Only elective courses can be combined.

Course Substitutions

The requirements for completion of an academic major are shown in this catalogue as a *minimum number of courses* and the associated credit hours. Each course has been carefully selected by the academic department offering the major. Course substitutions are, therefore, made only when justified by extenuating circumstances. Such circumstances must be presented in writing by the student, and the requested substitution must have the support of the faculty advisor, the department head, and the Dean of Undergraduate Studies. Forms for requesting course substitutions are available in the Registrar's Office.

ROTC Graduation Requirements

A cadet must be enrolled in and successfully complete an ROTC course every semester during which he is enrolled at The Citadel or until he has completed eight semesters. Voluntary withdrawal from or failure to register for ROTC courses is not permitted. If there are extenuating circumstances beyond the cadet's control, a cadet may withdraw or not register for ROTC provided he

has the support of the head of his ROTC department and the approval of his faculty advisor and the Dean of Undergraduate Studies. He must, however, make up the ROTC courses missed in order to graduate.

Upon the recommendation of the head of the appropriate ROTC department and with concurrence of the Dean of Undergraduate Studies, training experiences may be accepted in lieu of ROTC course work. When approved, the designated ROTC courses will be recorded on the student's Citadel transcript as if they had been completed at The Citadel on a Pass/Fail basis.

ROTC classes may not be used to satisfy elective requirements in any course of study.

Non-cadet Enrollment in ROTC

Non-cadets are not permitted to enroll in ROTC classes except under the following conditions:

1. The individual must be an active duty enlisted man on orders as a participant in a commissioning program for one of the armed services.
2. The individual must be accepted as a degree seeking student in the day program of The Citadel.
3. The individual must be enrolled as a full-time student in courses in the day program of The Citadel.
4. The individual must be provided leadership experiences outside the context of the Corps of Cadets.
5. ROTC classes will fulfill no degree requirements in a non-cadet's degree program.
6. The individual must be in uniform while on campus.

Course Load Requirements

A full-time student must be enrolled throughout each semester in course work with credits totaling at least 12 credit hours. A cadet must be a full-time student. Any cadet who drops below the 12 credit hour minimum at any time during a semester is subject to discharge, unless there are extremely extenuating circumstances. Such circumstances must be presented in writing to the Dean of Undergraduate Studies.

Course Overload

Outlines for the various academic majors are detailed in the Courses of Study section of this catalogue. Course selections for each semester have been carefully determined by each individual academic department on the basis of sequence and content. Following a particular course of study will ensure normal progress toward completion of minimum degree requirements within eight semesters.

For a variety of reasons, a student may find it desirable to take an additional, or overload, course during a particular semester. An overload course is defined to be any course taken in addition to those prescribed in the student's course of study for the semester in question.

During the first two weeks of each semester, the Office of the Dean of Undergraduate Studies will check the academic records of all students taking overload courses. If the academic record of the student does not support his capacity to handle the additional course load, the student will be required to withdraw from the overload course or courses.

Pass-Fail

Juniors and seniors with cumulative grade-point ratios of 2.000 or higher may elect to take elective courses on a Pass-Fail option. Normally no more than one course may be taken under this option each semester, and no more than four courses taken under this option may be used to meet graduation requirements. A student may take the Pass-Fail option only on courses which meet elective requirements. The student may not change his decision to take a course on the Pass-Fail basis after the first two weeks of the term. Courses completed on the Pass-Fail option carry graduation credit but no quality points are awarded, and such courses are not included in GPR computations.

Instructors report grades as usual, A through F. The Registrar's Office translates grades as follows:

1. The grades of "A" through "C" as "S" (satisfactory, pass—for credit);
2. The grades of "D" or "F" as "U" (unsatisfactory, fail—no credit).

Cadets who are taking a course under the Pass-Fail option and who wish to be considered for Dean's List or Gold Star honors must meet the following criteria:

1. The appropriate GPR requirement must be met on 12 or more semester hours beyond the Pass-Fail course;
2. The Pass-Fail course must be completed satisfactorily.

In determining the GPR for graduation with honors and for the position of First Honor Graduate, courses taken under the Pass-Fail option will be included.

When a student is documented as having a Learning Disability that warrants substitutions for courses required in a particular academic discipline, all courses previously completed in that discipline will be considered as having been taken under the Pass-Fail option.

Students desiring to take a course on the Pass-Fail option should contact the Registrar's Office.

Audit Status

Any student who is eligible to enroll in a particular course may, with the approval of the instructor and the Registrar, audit that course for no credit. There will be no additional charge if the student is enrolled for credit in courses totaling 12 or more hours. For students taking fewer than 12 credit hours, registration fees and 100 percent of the tuition for the course will be assessed. The student may not change his decision to take the course on the audit basis rather than for credit after the first two weeks of the term. Grades will not be given for courses taken in audit status.

Class Attendance Policy

The cornerstone of undergraduate education is communication between the teacher and the student. At The Citadel, class attendance is expected, and students are expected to be punctual. From reveille at 0645 until taps at 2400, the cadet's day is quite full. However, during these periods Monday through Friday, less than 20% of the time is designated for classes and laboratories, and these experiences are not to be missed. Therefore, except as indicated below, class attendance is *mandatory*.

Although class attendance is of higher priority than other normal activities, it is acknowledged that cadets must miss classes for certain authorized reasons—athletic events and connected travel, special events and ceremonies, daily and special guard duties, and the like. Certain medical and personal emergencies will require the missing of scheduled classes. **Should it be necessary to miss a class for any reason, the student will, unless circumstances preclude it, notify his professor in advance and will be responsible for any material covered in his absence. Assigned tests are *mandatory*. Unless authorized to the contrary by the professor, such tests take precedence over *all* other duties or activities.**

Should a cadet miss a class or a laboratory for unauthorized reasons, he will be required to serve a prescribed punishment.

For any student, absences, whether authorized or unauthorized, in excess of 20% of the meetings of a particular course can, at the discretion of the professor, result in a grade of "F" in that course. In such cases, the attendance record kept by the professor is official.

As soon as the instructor has determined that a grade of "F" for excessive absences is warranted, the Dean of Undergraduate Studies is notified, and the student is dropped from the course in question. If as a result of this action the total hours carried by a full-time student drops below 12 credit hours, the student is subject to immediate discharge from the college unless there are extenuating circumstances. Such circumstances must be presented in writing to the Dean of Undergraduate Studies.

Academic Criteria for Continuance

In order to be eligible to continue at The Citadel, a student must meet minimum standards regarding hours earned at The Citadel or properly transferred from another accredited institution and cumulative grade-point ratio maintained. These criteria are assessed at the end of each two-semester period after admission or readmission.

Credits earned through AP or CLEP prior to the academic year in question, or course work taken by an entering freshman in the summer prior to initial matriculation may not be used toward meeting the minimum standard regarding hours earned in an academic year. Although The Citadel will notify the student if he is deficient in either or both areas, it is the responsibility of the student to ensure that these criteria are met. To avoid academic discharge, a student must meet *both* hour and GPR requirements concurrently either at the end of the fall semester, at the end of the spring semester, or in August, as appropriate.

A full-time student (one carrying at least 12 credit hours each semester) must pass at least 24 semester hours in each 12-month period after admission or readmission. **If a previously passed course is repeated, the hours may be used only once toward meeting requirements for hours passed.**

Each student must maintain a minimum cumulative grade-point ratio as prescribed in the table below. This grade-point ratio is calculated as described earlier in this section.

The column "Quality Hours Plus Transfer Hours" includes: 1) all credits attempted for which a grade of "A," "B," "C," "D," or "F" was received at The Citadel, 2) course work transferred from other colleges, and 3) courses taken on Pass-Fail.

Quality Hours Plus Transfer & Pass/Fail Hours	Grade-Point Ratio for Continuance (on probation)	Grade Point Ratio for Continuance (without probation)
0-39	1.100	1.300
40-69	1.400	1.600
70-99	1.700	1.800
100 & above	1.900	2.000

This table traces the minimum academic progress a student must make toward attaining the minimum acceptable overall grade-point ratio of 2.000 as he approaches the total number of hours required in the course of study of his selected major. For the purpose of determining academic probation, criteria for continuance, dean's list, gold stars, graduation, and other academic matters, grade-point ratios will not be rounded.

Academic Discharge

A cadet's academic record will be subject to formal review for purposes of academic discharge at the end of the third semester after initial matriculation at The Citadel. During these three semesters and the summer sessions after initial matriculation, the cadet must have earned at least 36 credit hours and must at the time of review meet GPR requirements for continuance. If both these requirements are not met concurrently at that time, the cadet will be discharged for academic deficiencies.

Academic probation is assessed each semester, and after the initial review described above, academic assessment for the purpose of academic discharge is conducted at the end of each two-semester period, and the associated summer sessions, after the student is admitted or readmitted. Under the academic discharge policy, cadets may be discharged for academic deficiencies in January or in August of each year.

Summer session work cannot make a student ineligible to enroll in the following fall semester, if he was eligible for enrollment at the end of the previous spring semester. However, to avoid academic discharge, a student must meet both hour and GPR requirements concurrently either at the end of the fall semester, at the end of the spring semester, or in August, as appropriate.

Students who voluntarily withdraw at times other than January or August or who are discharged for other than academic reasons will have the academic status of their discharges assessed upon application for readmission.

Minimum grade-point ratios for the various categories are as shown in the previous section; however, the minimum GPR required will not be raised as a result of summer school work. That is, students moving from one category to the next higher category as a result of credit hours earned in summer school at The Citadel or elsewhere will be required to meet the GPR minimum of the lower category of credit hours for continuance in the following fall term.

A student who is discharged for academic reasons for the first time may apply for readmission after being out of school for one semester. Summer school does not constitute a semester in this instance. If approved for readmission, the student will be readmitted on academic probation.

If a student fails for a second time to meet minimum academic criteria for continuance, the Dean of Undergraduate Studies will review the academic record and any extenuating circumstances the student wishes to present in writing. Based on this review and in consultation with the faculty advisor and the department head, the Dean of Undergraduate Studies will determine the conditions under which the student will be permitted to continue or will award the student a second academic discharge. A student discharged a second time for academic reasons will not be considered for readmission and may not enroll in course work in any program at The Citadel—day, evening, or summer.

Academic Probation

To be eligible to take advantage of all leave privileges available to his class, a cadet must have a cumulative GPR of at least 2.00 and must have earned a GPR of at least 2.00 in the previous semester. A student is placed on academic probation for any semester when his cumulative grade-point ratio based on courses taken at The Citadel fails to meet the requirements for continuance without probation as outlined in the Academic Criteria for Continuance table.

A student will be removed from academic probation after the semester his cumulative grade-point ratio meets the requirements of the table. Satisfactory progress for a part-time student will be determined by the Dean of Undergraduate Studies.

Several academic departments have established criteria which must be met by their majors. Students not meeting these criteria are placed on probation within that department. This status is not related to and does not affect the academic probation which is awarded by the college. Where departmental probation has been established, a full explanation is provided within the section of this catalogue which describes that major.

Eligibility for cadet privileges, normally accorded academically proficient cadets, will be substantially reduced to the extent determined by the Dean of Undergraduate Studies and the Commandant of Cadets for those on academic probation. In addition, cadets on academic probation are required to participate in the Supplemental Study Periods Program.

Supplemental Study Periods Program

Supplemental study periods (SSP's) are established to provide *opportunities for academic improvement* for four groups of cadets: (a) those on Academic Probation; (b) those who have failed more than four credit hours on the most recent grade report (mid-term or end-of-semester); (c) those whose term GPR is below 2.0; and (d) other cadets as designated by the Dean of Undergraduate Studies. Cadets in these categories will be required to log four extra hours of study time each weekend by choosing any *two* of these two-hour blocks for their extra study time.

<i>Friday</i>	<i>Saturday</i>	<i>Sunday</i>
1900-2100	1300-1500	1300-1500
	1600-1800	1600-1800
	1900-2100	

During the time blocks which the cadets have selected, they will be in their rooms studying. Individual companies (i.e., the company academic officers) have the authority to make minor modifications to this general policy to suit particular circumstances which may arise within their companies. There are,

however, limits to the flexibility of these guidelines. In no case shall a cadet be required to log more than four extra study hours, and in no case shall the assignment to SSP cancel weekend or overnight leave privileges to which the student might otherwise be entitled.

The responsibility for supervision of this program within each company will be determined by that company's academic officer. For instance, the officers, the first sergeant, and the academic sergeant may rotate supervisory responsibilities over the weekend. Supervisory duty consist of maintaining a sign-in/sign-out sheet with the roster of cadets assigned to SSP each weekend and being available to help SSP participants find assistance with their academic work should they desire it.

Withdrawals

If a cadet finds it necessary to withdraw from The Citadel during the college year or does not wish to return to The Citadel in August following any college year, a written request for an honorable discharge must be sent to the Registrar.

Conduct Discharge

A cadet who has been expelled from The Citadel is not eligible to attend any undergraduate class at The Citadel—day, evening, or summer. A cadet who has been suspended or dismissed is not eligible to attend any undergraduate class at The Citadel—day, evening, or summer—until he has been accepted for readmission to the College.

Readmission Policy

A cadet wishing to return to the day program of The Citadel after he has been discharged must file an application for readmission with the Registrar. The deadline for receipt of an application for readmission for the spring term is October 1 and for the fall term is June 1. Applications postmarked after these dates will not normally be processed.

Cadets who are discharged due to academic deficiencies will be ineligible to apply for readmission until the lapse of one semester, either fall or spring. (Neither of the two summer sessions is considered a semester in this instance.)

A cadet discharged a second time for academic reasons will not be considered for readmission and may not enroll in course work in any program at The Citadel — day, evening, or summer.

Academic Promotions and Classifications

Cadets will be promoted to successive classes at the end of each semester provided their total earned hours are not more than eight behind the total number of hours listed in their catalogue of entry for their respective course of study.

Cadets are arranged in four distinct classes, corresponding with the four years of study. Cadets pursuing the first year's course constitute the fourth or freshman class; those taking the second year's course, the third or sophomore class; those in the third year's course, the second or junior class; and those in the fourth year's course, the first or senior class.

Fifth-Year Student Status

No civilian students are permitted to take classes with the Corps of Cadets.

Cadets will normally remain in the Corps of Cadets until degree requirements have been met. An exception to this policy may be considered under the following conditions, but under no conditions will a cadet who has not completed eight semesters in the Corps of Cadets be permitted to complete cadet degree requirements at The Citadel in a non-cadet status.

1. Cadets who are conduct proficient, who need fewer than 12 credit hours to complete degree requirements, and whose cumulative and major Grade Point Ratios are at least 2.00 (2.5 where appropriate) may request permission to complete cadet degree requirements by transferring the remaining hours back to The Citadel from an accredited institution. All transfer courses must have prior approval, and final grades of "C" or higher must be received by The Citadel Registrar's office within a calendar year of approval.
2. Cadets who are academically and conduct proficient, who have completed eight semesters in the Corps of Cadets and eight semester of ROTC, and who can present a plan for meeting degree requirements in no more than one calendar year through The Citadel's College of Graduate and Professional Studies and Summer School, may request a transfer to the College of Graduate and Professional Studies to complete cadet degree requirements. This plan must be presented in writing to the Dean of Undergraduate Studies and may include course work from other area colleges only if these courses are to be taken during summer school, the College of Charleston Maymester, or Charleston Southern University Inter-term.

Ordering a Ring

To be eligible to order his class ring, the cadet must have earned a cumulative Grade Point Ratio of at least 2.00 and must be no more than eight hours behind the senior year requirements of the course of study of his academic major. Ring orders will not be released until both these requirements have been met.

The Citadel College of Graduate and Professional Studies

Students who are in cadet status and are currently enrolled in the Corps of Cadets are not eligible to enroll in courses offered in the College of Graduate

and Professional Studies. Students who are in cadet status and are not currently enrolled in the Corps of Cadets, but who have not been given a conduct or academic discharge, may, with the prior approval of the Dean of Undergraduate Studies, take a limited number of credits in the College of Graduate and Professional Studies.

The Citadel Summer School

In summer programs, a student may enroll at The Citadel or transfer from an accredited institution no more than four courses and the associated labs, totalling no more than 14 credit hours.

Two day summer sessions and one evening summer session are conducted for students who wish to accelerate their work or address academic problems. The same fees are charged to both South Carolina and out-of-state students. All fees are due and payable at the time of registration unless prior arrangements have been made with the Treasurer. Bills for summer sessions will not be mailed by the Treasurer. There will be no refunds of tuition after the first week of each session. During the summer session all purchases of books and supplies will be on a cash basis.

A cadet who has been expelled from The Citadel is not eligible to attend any undergraduate class at The Citadel—day, evening, or summer. A cadet who has been suspended or dismissed is not eligible to attend any undergraduate class at The Citadel—day, evening, or summer—until he has been accepted for readmission to the College.

Details of the summer school program are available through the Summer School Bulletin which can be obtained from the College of Graduate and Professional Studies or the Registrar's Office.

Change of Academic Major

A student may not change from one academic major to another without written approval. Forms for requesting a change of academic major are available in the Registrar's Office. Because both entrance and exit requirements differ among the various academic majors, students who are considering a change of major are required to consult with their academic advisors as well as the heads of both the gaining and losing academic departments.

Requirements for an Academic Minor

A minor is defined to be a curricular component which enables a student to make an inquiry into a single discipline or field of study, or to investigate a particular topic across the boundaries of two or more disciplines. In either case, the minor is not simply a specified number of credit hours, but a well-defined course of study. The minor within a single discipline or field of study must

demonstrate that it leads the student to some understanding of that discipline or field of study and to some degree of competence with its methods of inquiry. The interdisciplinary minor must demonstrate how it will help the student come to some understanding of the answers to the questions upon which it is focused.

A minor complements the student's major, and does not simply expand it with more courses in the same field. For this reason, students may not ordinarily pursue both a major and minor in the same discipline. However, in the case where a discrete topical minor is administered by the student's major department, an exception may be in order.

A minor consists of an ordered series of courses totalling at least 15 credit hours, at least 12 of which must be beyond Core Curriculum or major requirements and at least 6 of which must be at the 300/400 level. At least 9 hours of the minor must be organized in a logical sequence of required courses which provides general direction for the student's study.

For minors in a single discipline or field of study, the department offering that discipline or field of study is responsible for formulating the requirements of the minor, presenting the minor to the college, and, if it is approved, continuing assessment of the minor. For an interdisciplinary minor, a lead department is designated which is responsible for coordinating the formulation of the minor requirements and coordinating the continuing assessment of the minor.

A student who meets all requirements for an approved minor will have both the major and minor indicated on his transcript. Requirements for each minor are presented in the academic department sections of this catalogue.

Pursuing A Double Major

Under certain circumstances, a student may wish to pursue two different majors within the *same* baccalaureate degree. This will be recognized under the following conditions:

1. The student must declare his intentions to the Registrar no later than the fall semester of his junior year.
2. Both majors must be offered under the same baccalaureate degree.
3. The student must complete all requirements for each major.
4. The student, in addition to meeting a minimum overall grade-point ratio, must achieve a minimum grade-point ratio of 2.000 based on all credit hours and all quality points earned in course work taken in *each* major.

A student who has met these requirements will have both majors indicated on his transcript. A student desiring to pursue a double major should contact the Registrar's Office to complete appropriate paperwork.

Pursuing A Second Baccalaureate Degree

Under certain circumstances, a student may wish to pursue two *different* baccalaureate degrees. This will be allowed under the following conditions:

1. The student must complete all requirements of each degree.
2. The student must complete a minimum of 30 hours beyond the initial degree.
3. The student is normally expected to complete requirements for the second degree while pursuing the initial undergraduate degree.
4. Any remaining requirements after the initial degree has been completed must be addressed in the College of Graduate and Professional Studies.

Graduate Courses

Cadets are not permitted to enroll in graduate courses during the fall or spring semester.

ROTC Commissioning Requirements

Although cadets are required to enroll in ROTC during every semester during which they are enrolled at The Citadel or until they have completed eight semesters, they are not required to accept, nor are they guaranteed to be offered, a commission in one of the Armed Forces.

A cadet pursuing a commission through an ROTC program must complete the entire ROTC program of the applicable service, or that portion specified by the commanding officer of the ROTC unit concerned.

Transfer Between ROTC Programs

The early selection of an ROTC program by a cadet is extremely important since the curriculum of each ROTC program differs from service to service and each is sequential and progressive. A transfer between programs, therefore, may prove to be undesirable. For these reasons, a cadet who transfers from one ROTC program to another after the freshman year may be required to make up certain ROTC courses so that he will have the proper background for the new program. Any courses required to be made up will be in addition to the normal ROTC requirements for graduation. As noted above, a cadet who is pursuing a commission will normally be required to complete the entire ROTC program of the appropriate service.

As in the case of a change in an academic major, a cadet may not transfer between ROTC programs without written approval. Applications for transfer must be submitted on forms available from the Registrar's Office. All students must consult with both the losing and gaining ROTC commanding officers to ascertain the effect of the proposed transfer. After the sophomore year, a cadet will not be permitted to change his ROTC program unless he is pursuing a

commission in the new ROTC program.

A transfer between ROTC programs will not reduce the number of ROTC semesters required for graduation, nor may more than 16 credit hours be applied toward completion of graduation requirements.

Confidentiality of Student Records

The Citadel maintains and discloses information from student records in accordance with the provisions of the Family Educational Rights and Privacy Act of 1974 (FERPA). This law requires that educational institutions maintain the confidentiality of student educational records. The Citadel accords all rights under the law.

No one outside of The Citadel shall have access to nor will the institution disclose any information from a student's educational records without the written consent of the student except in compliance with the provisions of Federal and State law. Such disclosure may include disclosure to personnel within the institution, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, or, in an emergency, to persons in order to protect the health or safety of the student or others.

Within The Citadel community, only those members, individually or collectively, acting in the student's educational interests are allowed access to student educational records. These members include personnel in the Offices of the President, Vice President for Academic Affairs and Dean of the College, Administrative Dean, Registrar, Director of Admissions, Director of Financial Aid and Scholarships, Controller, Commandant, Faculty members, and other personnel within the institution having a need to know.

Directory information about a student may be disclosed at the discretion of The Citadel without the consent of the student unless the student has notified the Registrar within two weeks of the beginning of the academic year (Fall semester) that the student refuses to allow the disclosure of such information. Notice to maintain directory information as confidential must be given at the beginning of each academic year, and is valid only for that year; therefore, any student desiring to keep directory information confidential must file a notice of such each year.

Directory information includes student name, local and permanent address and telephone number, date and place of birth, major field of study, Dean's List and Gold Star List, ROTC branch, dates of acceptance and attendance, years in school, anticipated date of graduation, degrees and awards received, graduation honors, academic and military awards, the most recent previous educational agency or institution attended by the student, cadet company and rank, participation in officially recognized activities and sports, weight and height of members of athletic teams, U.S. citizenship, extra-curricular activities, and residency status.

A copy of the Family Educational Rights and Privacy Act of 1974 and details of The Citadel policy on maintaining and disclosing student records may be obtained in the Office of the Registrar.

CADET LIFE

The Citadel takes pride in educating the "Whole Man"—mind, body, and spirit—, and the cadet lifestyle is an important aspect of this educational process. From the Freshman, or Knob Year, until graduation, numerous opportunities and challenges are afforded cadets both within the cadet companies and through the many cadet organizations on campus. The Citadel's faculty, staff, and facilities are dedicated to ensuring the well-being of its students and to providing a stimulating environment which is conducive to their personal growth.

Student Advisory Services

Academic Faculty Advisor. Each student is assigned a faculty advisor who provides counsel concerning course selections and options within particular courses of study. Though students are encouraged to visit their advisors throughout the academic year, formal planning sessions are designated each semester during preregistration and registration.

Tactical Officer. Each cadet company is assigned an active duty officer who is currently serving one of the ROTC detachments at The Citadel. This officer provides counsel concerning matters of cadet lifestyle and regulations and provides leadership training in cadet company areas and while supervising drill periods.

Company Academic Advisor. Each cadet company is assigned a specially chosen member of the faculty or staff who works closely with the company tactical officer and the cadet chain-of-command to ensure that academic and military requirements are compatible and that cadets take advantage of academic opportunities available to them on the campus.

Counseling Center. The Citadel Counseling Center provides students with direct, professional, and confidential counseling services. Personal, educational, and career counseling services are available by appointment. Counseling is provided in an informal setting where students may benefit from a relationship with an experienced counselor.

The Citadel Counseling Center also administers and interprets intelligence tests, personality inventories, and interest inventories. The center is also a Controlled Testing Center for the Psychological Corporation and administers specialized group tests such as the Miller Analogies Test (MAT).

Appointments may be made directly by the students or by referral from others such as professors, faculty advisors, chaplains, tactical officers, the Col-

lege Physician, cadet officers, or friends.

Pastoral Counseling. Pastoral counseling is an important component in the overall design of The Citadel's advisory program. Campus ministers are available to establish with students an ongoing pastoral relationship that includes dealing with life problems in the context of religious values. Realizing our varied personal limits, there are occasions when referrals will be made. However, among the chaplains, you are assured of caring, concern, and confidentiality, whatever your situation.

Substance Abuse Counseling. The Citadel Substance Awareness Program offers assistance to students in the areas of alcohol and other drug counseling, education, information, and prevention. This is done using a variety of resources including peer educators, faculty and staff educators, the On Campus...Talking About Alcohol (OCTAA) class, and individual counseling.

The Peer Education Program (C.A.D.R.E.) consists of a group of volunteer students who serve as resource persons for campus classes, organizations, and cadet companies. These individuals have been trained in alcohol and other drug information, prevention techniques, communication skills, and referral resources. The OCTAA program is designed to aid individuals in examining their own choices about alcohol and other drugs and provides information on how to reduce the risk for developing a problem. Peer, faculty, staff, or self referrals may be made to the Substance Awareness Program located in Thompson Hall.

Prelaw and Premedical Advising Services. The Citadel provides counseling and guidance to all students who have an interest in attending law or medical school after graduation. A student interested in a law career should seek advice early in his college career from the chairman of the Prelaw Advisory Committee. Students interested in medicine and related fields should seek early advice from the chairman of the Premedical Advisory Committee. Each committee is composed of faculty members from academic disciplines related to these professional fields.

Services for Learning Disabled Students. Under Federal regulations, Part B of the "Individuals with Disabilities Education Act" and with Section 504 of the "Rehabilitation Act of 1973," it is the responsibility of the student to document his learning problems. The Citadel has designated that this documentation must include appropriate tests administered and evaluated by a licensed professional and historical data regarding how these learning problems have been addressed thus far in the student's academic career.

Disclosure of a learning disability is voluntary, but students are urged to share documentation of their learning disabilities with the Coordinator of Services for Learning Disabled Students as early as practical. Noting a learning disability on an application for admission or readmission will have no adverse influence on the decision reached but will alert the appropriate officials of the

college and will ensure that the student is made aware of all available services.

Through the Coordinator of Services for Learning Disabled Students, individualized programs are developed to help the student learn to accommodate on his own for his learning problems and to assist the student with academic advising, basic study skills, organizational skills, and time management.

Career Planning and Placement Services. The Placement Office of The Citadel Alumni Office is organized primarily to help members of the graduating class find permanent employment in their chosen career field. The office also helps students obtain meaningful summer employment and internships prior to graduation. To alumni who are searching for jobs, the Placement Office provides assistance through contacts and resume referrals.

The Placement Office staff provides personal individualized assistance and guidance. Current job opportunities, opportunities for advanced study, interview schedules, and other pertinent information are prominently posted in the Placement Office. The Placement Office offers a variety of job search resources including technical production of resumes and letters of introduction; workshops on interview preparation, decision-making, and strategies for job searches; reference materials such as company profiles, annual reports, and salary surveys; information on local and regional career fair; and career counseling. The Placement Office also assists in arranging interviews on-campus, off-campus, and on-site.

Individuals are encouraged to make themselves at home in the Placement Office and to take full advantage of the resources and opportunities provided by that office, which is located at 573 Huger Street (at the corner of Huger and Hagood just outside the side gate of The Citadel).

Instructional Support Facilities

Daniel Library. The Daniel Library is open for student use nearly 85 hours per week during the regular academic semester. The main collection contains approximately 200,000 volumes, 1,300 journal subscriptions, 111,000 government documents, 800 video tapes, and 886,000 units of microform. The total collection is accessible to students in open stacks. All library books are listed in the on-line catalog, and this on-line catalog can be searched from any VAX terminal, and most other workstations, throughout the campus. Many resources have been loaded onto the computer network in CD-ROM format and are available directly to the user. The Citadel is also part of regional, national, and international computer networks that provide users with virtually unlimited resources. Citadel students may access books and journal articles located at the College of Charleston, the Medical University, Trident Technical College, and the Charleston Southern University either through interlibrary loan or regular borrowing. Students may also be eligible for computer assisted searches. Profes-

sional librarians and trained support staff are available for users' assistance. The library faculty provides bibliographic instruction classes for all students.

The Citadel Writing Center. The Writing Center seeks to elevate the quality of writing both on campus and in the community. Professional tutors and student assistants provide one-on-one tutoring in writing, critical reading, and study skills. Workshops on such topics as "Punctuation and Mechanics," "Preparing the Research Paper," and "Essay Test Skills" are also offered. The Writing Center answers a Grammar Hotline for Citadel students, faculty, and staff, as well as members of the Charleston community. Microcomputers are available for independent or assisted word processing. The Citadel Writing Center recommends that incoming students have typing skills to take full advantage of the widespread use of computers on campus. Software is available for checking spelling, studying grammar and mechanics, improving typing, studying vocabulary, and preparing for graduate school entrance exams. Through word processing and tutoring services, the Writing Center strives to strengthen students' writing skills.

Computing Resources. The Citadel provides its students superior computing resources. All students have ready access to a variety of popular computers, including Apple Macintoshes, IBM-compatible PCs, and Digital VAXs and UNIX RISC workstations.

Macintosh and IBM-compatible users can use the latest versions of leading personal computer software such as WordPerfect, Lotus 1-2-3, Wingz, dBASE, AutoCAD, DrawPerfect, and SuperPaint—as well as a wide variety of business, engineering, foreign language, and natural and social science packages.

VAX users can work with several computer language compilers and a variety of mathematics, engineering, and statistical packages. UNIX users can use a number of compilers and interpreters, mathematics and engineering packages, a multi-user database management system, and state-of-the-art software development tools.

Regardless of what type of computer students use, they can access four different computer networks: *Citnet* (The Citadel's campuswide network), *Coastnet* (which links six Charleston Area colleges and libraries), *BITNET* (an international network of colleges and research centers), and Internet (an international network that connects thousands of education, government, business, and military organizations). Through these networks, students can search library catalogs and reference publications, access computer bulletin boards and conferences, and send electronic mail messages to people throughout the world—all at no cost.

The Citadel operates nine general-purpose computer labs that are located in classroom buildings at both ends of campus. In addition a small computer lab

is located in each of the four barracks. All of these labs are open seven days a week, all are equipped with laser printers, and some have color printers or plotters as well. All of the Macintoshes, IBM-compatibles, and UNIX workstations in these labs use 3.5-inch diskettes (but not 5.25-inch diskettes). Multimedia classrooms in Capers Hall feature large-screen video projection systems, a sound system, and an instructor's workstation housing a high-end IBM compatible and a high-end Macintosh; both of these computers are connected to the video and sound systems as well as to a CD-ROM player, a video disk player, a VCR, and a small overhead television camera that serves as an electronic blackboard.

Finally, students can purchase their own Apple Macintoshes, IBM PS/2s, and personal computer software through the Cadet Store at educational discount prices.

Religious Activities

College years are exciting times of growth and challenge, when a young person's faith and religious heritage are examined in the light of new experiences and perspectives. While college years may be marked by a "crisis of faith," they frequently are also marked by a deepening commitment to life-long religious values. The Chaplain, who also serves as the Director of Religious Activities is committed to assisting in that deepening commitment.

Working closely with the Chaplain within the Corps of Cadets are the Cadet Regimental Religious Officer, the Battalion Religious Officers, and the Religious Council. Additionally, a team of campus ministers helps to round out the religious program. Nine part-time campus ministers and five parachurch leaders coordinate their ministries with the Director of Religious Activities. Denominational meetings are held each Monday evening and parachurch groups meet each Thursday evening for study, fellowship, and worship.

Campus Ministries:

A.M.E. Fellowship: African Methodist Episcopal

Baptist Student Union: Baptist

Greek Orthodox Fellowship: Eastern Orthodox

Hillel Society: Jewish

Lutheran Student Movement: Lutheran

Christ the Divine Teacher Parish: Catholic

St. Alban's Parish: Episcopal

Wesley Foundation: Methodist

Westminster Fellowship: Presbyterian

Parachurch interdenominational study and fellowship:

Campus Crusade for Christ

The Navigators

Fellowship of Christian Athletes
Officer's Christian Fellowship
Full Gospel Business Men's Fellowship

Campus Worship

The following three chapels on campus provide regularly scheduled services of worship for Episcopalians, Protestants, and Catholics, respectively: Saint Alban's Chapel, Summerall Chapel, and Blessed Sacrament Chapel.

The inscription on Summerall Chapel, "Remember now thy Creator in the days of thy youth" (Eccl. 12:1), becomes very important to cadets who need a source of strength beyond their personal means. In addition to regularly scheduled worship, Summerall Chapel is open daily for prayer, rest, and meditation.

Citadel Chapel Choirs

Four cadet chapel choirs enhance services of worship on campus. They are the Christ the Divine Teacher Parish Choir, Saint Alban's Episcopal Parish Choir, and two choirs within the Interdenominational Protestant Parish: the Traditional and Gospel Choirs. These four choirs combine for special events each year such as Homecoming Sunday, Christmas Candlelight Service, and Corps Anniversary Sunday.

Department of Student Activities

Activities in which students are involved when outside the classroom are intended to provide for each individual the opportunity to broaden his talents in areas of his liking and capability.

Publications

The Brigadier, published by a staff of students, serves as the campus newspaper. Ten issues are published each semester.

The Sphinx, the college yearbook, is published annually by a staff of students. This publication serves as a semiofficial record of the student's year.

The Shako, a literary magazine, is published twice a year.

The Fulcrum, the publication of the Honors Students' Association, is published at least once each semester.

The Guidon, the cadet handbook, is published annually by a staff of cadets. The handbook contains a complete description of the activities of the college, college history and customs, and duties and responsibilities of cadets. It is mailed to incoming freshmen early in the summer and distributed to other students at the beginning of the college year.

The Student Directory, published in the fall of each year by a student staff of Tau Beta Pi (National Engineering Honor Society) members, lists names and

home addresses of all students at the college.

Fine Arts Series

Inaugurated in 1965, the Fine Arts Series has presented annually a wide variety of programs which have been both entertaining and culturally illuminating. Several programs are presented during the academic year. Included among past performances have been opera singers, musical ensembles, soloists, traditional dance groups from around the world, Shakespearean plays, and dramatic presentations.

Greater Issues Series

The Greater Issues Series presents two or more major addresses each academic year. The series was inaugurated by General Mark Clark in 1954 to enhance the preparation of The Citadel's Cadets for roles as responsible members of our society. Since then, these addresses have brought to The Citadel an impressive group of distinguished speakers including Presidents of the United States, American and foreign dignitaries, scholars, diplomats, important military figures, business leaders, and many others. These addresses are open to the general public.

Social Events

All Citadel dances are under the sponsorship of the Standing Hop Committee, an organization comprised of members of the three upper classes. Its duties are to select bands and coordinate all plans for the hops.

Citadel hops highlight the social activities of the college. As dances are strictly for and by students, few invitations are issued outside The Citadel. The formal hops held annually are the Homecoming Hop, Ring Hop, and the Corps Day Hop. Informal dances and parties are normally held at The Citadel Beach Club.

Musical Organizations

The cadet orchestra, known as "The Bulldog Orchestra," furnishes music for the ring ceremony, informal dances, the Talent Show, and the Spring Music Festival. The Citadel Cadet Chorale and the "Original Thirteen" are vocal groups which sing all types of musical arrangements. The Citadel Band provides music for parades, reviews, and other official ceremonies. The Citadel Bagpipers are an integral part of the Band. The Citadel "Pep Band," a group of musicians from within The Citadel Band, performs at Citadel basketball games.

Clubs and Societies

Memberships in a wide variety of clubs, societies, and other organizations are

available to all students. Among these are literary and discussion groups, professional societies, military organizations, and recreational and service clubs. The span of these activities is so broad and so varied that every student should find an organization that fits his interests and talents.

College Social Director (Hostess)

The Citadel hostess serves as social advisor for cadets. Her office is located in the reception room of Mark Clark Hall. Under her supervision, various cadet committees are formed to plan formal and informal socials, the Miss Citadel contest, and other activities. She keeps the reception room open and maintained in good taste for the use of cadets and their guests. The hostess maintains an open-door policy and is always willing to assist students.

Art of Good Taste

A booklet published at The Citadel, *Art of Good Taste*, is designed to provide cadets with a compact manual of proper etiquette and the customs and courtesies of the gentleman in or out of the service. All cadets receive instruction in these subjects and are furnished a copy of this booklet for their personal use.

After explaining clearly the value of a knowledge of the correct manner of conducting oneself in a social environment, the booklet presents detailed information on such matters as personal appearance and dress, table manners, introductions, calling cards, social correspondence, overnight visits, and punctuality.

Student Facilities

Mark Clark Hall

The office of the Department of Student Activities is housed on the second floor in Mark Clark Hall, which serves as the student union building. Named after General Mark W. Clark, it has been in use since 1958. On the first floor are a reception room, canteen, gift shop, post office, and a game room. On the second floor are a TV room, an auditorium, the alcove lounge, a kitchen, two meeting rooms, and staff workrooms for student publications. On the third floor are the Catholic chaplain's office and chapel, the Episcopal chaplain's office, the honor court room, and the office and darkroom of The Citadel's photographer.

Beach Club

The Colonel Robert R. McCormick Beach Club is on the Isle of Palms, about a half hour's drive from the campus. This functional two-story clubhouse was destroyed by hurricane Hugo, and reconstruction on its five-acre tract overlooking the Atlantic Ocean is currently in the re-building phase. A bathhouse, outside barbecue and grill areas, and sheltered picnic area are provided, as well as

shuffleboard courts and areas for volleyball and horseshoes. The grounds are floodlighted to facilitate evening parties. Food and beverages are sold on weekends at the Beach Club during the warm weather months.

Boating Center

The Citadel Boating Center membership consists of all members of the student body, faculty, and staff. There are no dues connected with the membership, and preference is given to students in the use of the center's facilities.

The club fleet consists of a 73-foot motor yacht, small sailboats, and outboard motorboats, and all are available to students.

Boating Center facilities consist of a clubhouse, dockage, marine railway, sail loft, and work area for maintenance and repair of small boats. Storage of privately owned boats is available for a small fee.

Intramural Athletic Program

The Citadel's intramural athletic program represents an integral part of the cadet's life and is, therefore, strongly recommended for all cadets not involved in intercollegiate athletics or comprehensive sports clubs. The program consists of the activities (listed below) including both individual and team sports. Team activities have been separated for freshman and upperclass participation to give all cadets an opportunity to engage in the more vigorous competitive sports. The intramural program is administered by the Department of Health and Physical Education.

Badminton	Table Tennis	Volleyball (UC)
3 on 3 Basketball	Team Handball	Sigma Delta Psi
Basketball (FR)	Tennis	Soccer
Basketball (UC)	Flag Football (FR)	Softball (FR)
Basketball Freethrow	Flag Football (UC)	Softball (UC)
Golf (Basketball)	Handball	Steeplechase
Bicycling (Triathlon)	Innertube Water Polo	Swimming
Billiards	Jogging	Wallyball
Canoe-Race	Racquetball	Weight Lifting
Croquet	Track	Wrestling
Horseshoes	Volleyball (FR)	

Note: For further information regarding the intramural program see the handbook, *Intramurals, Sports Clubs and Recreation—The Citadel*.

Sports Club Program

The Sports Club Program is administered through the Department of Health and Physical Education by a council of representatives from each of the various clubs. Currently bicycling, bowling, boxing, crew, fencing, judo, lacrosse, para-

chute, pistol, rugby, sailing, scuba, Taekwon Do, The Citadel Rifle Legion Drill Team and volleyball clubs hold membership on the council.

Note: For further information regarding the Sports Club program see the handbook, *Intramurals, Sports Clubs and Recreation—The Citadel*.

The Honor System

The honor system of the Corps of Cadets makes a unique contribution to the overall educational process at The Citadel. It is an integral part of the training received by all cadets, and its purpose is to inculcate a sense of honor in each Citadel graduate so that he instinctively conducts himself in an honorable manner.

The Honor Code states that a cadet does not lie, cheat, or steal, nor tolerate those who do. The code is enforced and supervised by a cadet Honor Committee composed of members of the first class who are elected in the spring of their junior year by the three lower classes.

The Honor Committee consists of representatives from each company and each battalion who instruct incoming freshmen in the honor system and assist all cadets with interpreting the honor system. When a cadet is reported for an honor violation, the circumstances are thoroughly investigated; if there is a *prima facie* case established against him, he appears before an Honor Court composed of 10 members of the Honor Committee. A cadet accused of an honor violation is provided a cadet counsel, and cross examination is allowed. Conviction by the Honor Court requires a unanimous secret vote of "guilty." If a cadet is found guilty and if the President confirms the verdict, he is expelled from the Corps of Cadets. The Honor Committee is responsible directly to the president of the college. A faculty advisor assists the Honor Committee. This officer provides counsel and acts in an advisory capacity at each Honor Court trial.

Infirmary

The Citadel Infirmary's primary mission is to provide medical care to The Citadel Corps of Cadets during the regular academic year. The infirmary is staffed on that basis, and operates on a 24-hour-a-day, seven-day-a-week basis during the time the Corps of Cadets is on campus.

The Citadel Infirmary does not employ a full-time physician. A part-time physician is employed to participate in sick call each morning and to provide proper supervision for the well-trained staff of registered nurses who operate the infirmary during all other periods. In addition, The Citadel Infirmary receives support from certified athletic trainers on the college's Sports Medicine staff.

The Citadel also has a Sports Medicine Department which is staffed by certified athletic trainers. The Sports Medicine Department provides support to The Citadel Infirmary, the Athletic Department, the three ROTC Departments,

the intramural programs, and other cadet, faculty, and staff activities.

Hospital Group Insurance

The Citadel has made arrangements with a private insurance company for a group hospitalization program which is available to most cadets. The particulars of this program are provided to the parents or guardians of cadets prior to each school year. This program is approved by The Citadel but operated by the private insurance agency.

The student insurance policy is designed to provide *supplemental* insurance and may not provide adequate coverage for all illnesses or injuries. **It is emphasized that it is up to the cadet and his parent, or guardian to determine what they feel constitutes adequate coverage, but hospital/medical insurance is a requirement for all cadets.**

Employment

The time of a cadet at The Citadel is so taken up with his duties that there is little opportunity for employment for the purpose of financial assistance. However, there are a limited number of part-time and work study jobs available with various campus activities. The employment is designed to provide for a modest portion of college expenses.

The Citadel's Physical Fitness Test

The Citadel's Physical Fitness Test is given during the early part of each semester. Any cadet failing to meet minimum standards will be assigned to a remedial physical fitness program.



Military Policies

General

The Citadel is justly proud of its military training program which contributes significantly to the State of South Carolina and the nation in the form of military and civilian leadership. The Citadel is one of four Essential Military Colleges remaining in the country. Citadel graduates are adding to the rich heritage of their alma mater as officers in the armed forces and as leaders in the state and nation.

The ROTC training at The Citadel is conducted by active duty commissioned and noncommissioned officers of the U.S. Army, U.S. Navy, U.S. Air Force, and U.S. Marine Corps. These active duty military personnel are organized into the Department of Military Science (Army Reserve Officers' Training Corps), the Department of Naval Science (Naval Reserve Officers' Training Corps), and the Department of Aerospace Studies (Air Force Reserve Officers' Training Corps). While eight semesters of ROTC training are required of all cadets attending The Citadel, and graduates are encouraged to seek a commission in one of the armed force services, cadet graduates are not required to accept a commission.

Commandant of Cadets

The Commandant of Cadets supervises the Corps of Cadets and is responsible for leadership training and maintenance of discipline. He grants leave and other privileges provided for by regulations and is charged with the maintenance of discipline over all cadets attending The Citadel. The commandant exercises supervision over barracks, controls the officer-in-charge and the cadet guard, and keeps the president of the college informed on matters pertaining to the administration, conduct, and discipline of the Corps of Cadets.

Discipline

The Citadel is a military college, and high standards of conduct and discipline must be maintained. By instruction and example, cadets are taught to be neat in person and in uniform. Daily inspections of rooms ensure cleanliness and good order. Through individual personal contact and group meetings, cadets are encouraged to uphold the traditions of The Citadel and the standards of honor, integrity, and courtesy which are an outstanding mark of the cadet and gentleman.

Leadership

Leadership, initiative, and character are developed by placing upon cadets the stimulating responsibilities of command within the organization.

All cadets live in barracks. From reveille to taps, every hour of the cadet's time is accounted for. The regular habits of study and living, attention to duty, obedience to authority, and appreciation of order are considered among the most valuable features of The Citadel education. While some graduates enter the military profession, hundreds in all walks of civilian life attest to the high value of the training received at this institution.

The daily routine is regulated by the *Cadet Regulations*, generally known as *The Blue Book*.

Allowances of Demerits

When any cadet accumulates more than 20 demerits per month in his senior year, 22 per month in his junior year, 24 per month in his sophomore year, or 30 per month in his freshman year, he will be declared conduct deficient. Cadets repeating any part of the fourth class year are allowed only 25 demerits per month. Conduct deficient cadets are not allowed to take normal leaves or passes and are required to serve one hour of punishment for each demerit over the specified limit. Any cadet exceeding the allowed limit of demerits or other punishments may be discharged.

Clothing/Luggage

All cadets are required to furnish their own bed clothes except a bedspread and blanket which will be issued to each cadet. Beds and mattresses are provided by the College, but pillows are not. One cloth mattress cover will be issued at cost to each cadet. Cadets *must* bring with them other required articles (a list of required articles will be provided by the Admissions Office). A list of instructions pertaining to personal effects will be sent to each cadet prior to the reporting date for incoming freshmen.

A cadet's social security number will be used as his student identification number and his laundry number.

It is advisable to bring inexpensive trunks and suitcases since it is not permissible to retain them in the cadet's room and they must be stored in a warehouse on campus. One overnight bag for weekend or athletic trips may be kept in the cadet's room. Excess luggage, on a limited basis, may be stored in the Central Supply storage facility at the risk of the owner.

Luggage may be shipped to The Citadel in advance. Luggage sent by commercial transportation should be clearly identified with the name of the cadet, company letter and/or barracks number or name, and shipped to Central Supply, The Citadel, Charleston, S.C. 29409.

Automobiles

All vehicles operated on campus by cadets, other Citadel students, faculty, or staff must be registered with the Department of Public Safety, but registration is a privilege and not a right. Registered vehicles must meet current home-state requirements with regard to registration, insurance, and safety inspections. All vehicles are operated and parked on campus at the owner's risk. All unregistered or illegally parked vehicles are subject to ticketing and towing at the owner's risk and expense.

Each cadet of the first, second, or third class is authorized to have an automobile at The Citadel. The vehicle must be registered with The Citadel Provost Marshal (Director of Public Safety).

Parking fees are charged for all on-campus parking. Each registered first or second class cadet vehicle will be assigned a specific, 24-hour per day, reserved parking space on campus. A set of cadet decals for this space will be affixed to each registered vehicle. The vehicle may only be parked in the space designated on the decals and in no other space at any time unless specific authorization is given by a member of the Department of Public Safety.

Cadets of the **THIRD CLASS** will register their automobiles as noted above and park their vehicles on **SOPHOMORE FIELD** from Sunday at 1600 hours through Friday at 1700 hours. During the period 1700 Friday, through 1600 Sunday, **THIRD CLASS** cadets may park behind Capers and Jenkins Hall except during major events/weekends. No cadets will park overnight off-campus in the immediate vicinity of The Citadel. The immediate vicinity is defined by Spring Street on the South, Rutledge Avenue on the East, and St. Margaret Street on the North.

Cadets of the fourth class are not authorized to have, maintain, or park an automobile on The Citadel campus or within the above area at any time during their freshman year. Freshmen should not bring cars to Charleston.

Two or three wheeled motorized vehicles are not authorized to be operated on campus.

Reserves and National Guards

Cadets are authorized to become members of Army, Navy, Air Force, or Marine Corps Reserves or National Guard units. Students who join such organizations should join local units in the Charleston area. Cadets joining such organizations must understand that cadet responsibilities take priority. Academic classes and certain formations will not be missed to meet drill requirements for such organizations.

Leave

It is expected that parents will not ask for special leave for their sons except

in cases of extreme emergencies. In every case, the reason for the leave must be stated in writing and the decision left to The Citadel authorities as to whether the circumstances warrant the granting of the leave.

The paragraph which follows is extracted from *Cadet Regulations*:

"803c(4). EMERGENCY LEAVE.

Emergency leave may be granted only upon request of the parent or guardian in the event of death or critical illness of a member of the cadet's immediate family.

Duration of this leave will be predicated upon distance and time required but should normally not exceed five days. The immediate family includes parents, grandparents, brothers, sisters, and the permanent resident members of the family.

Critical illness is defined as an illness of such proportions that death may be imminent.

Special leave normally may be granted upon request of the family or guardian only in the event of the marriage of a member of the cadet's immediate family or golden wedding anniversary in the cadet's family.

Cadets may be granted special leave for such unusual business affairs as cannot be arranged by correspondence but require the presence of the cadet in person. In these cases applications from parents or guardians stating the circumstances are required. In all cases, the final decision must rest with the authorities of the college.

The Citadel has a weekend and overnight leave policy based on increasing class privileges for cadets who maintain academic and conduct proficiency. Fourth Class Cadets are not authorized an overnight or weekend leave during the first semester.

Leaves are granted at Thanksgiving, at Christmas, and in the spring, and upon completion of the second semester, the Corps is released on furlough."

The following paragraphs pertaining to medical leave are extracted from *Cadet Regulations*:

"138. MEDICAL SERVICES".

"138a (3) Except in an emergency occurring on leave requiring immediate attention, a cadet will not arrange for or receive professional treatment from doctors or specialists without the knowledge of The Citadel Physician. Applications for any special leave required for such treatment will be submitted to The Citadel Physician and, if approved, will be forwarded by The Citadel Physician to the Commandant."

"138a (5) Cadets who are receiving medical care under the auspices of a private doctor will in all cases report the nature of the treatment, to include the

illness and prescribed medication, to The Citadel Physician."

"138e SPECIAL MEDICAL AND DENTAL SERVICE.

(1) Dental work, special eye examinations, etc. should be scheduled during the summer, Christmas, or spring furlough periods.

(2) If the services of a local dentist, oculist, doctor, or other specialist are deemed necessary, the cadet will make his own appointment, however he must inform The Citadel Physician. If desired, the infirmary will schedule the required appointment for the cadet."

The Fourth Class System

The purpose of the Fourth Class System at The Citadel is to lay the foundation, early in a cadet's career, for the development of those qualities of character and discipline implied in the mission of The Citadel as a military college—to produce Citadel Whole Men with alert minds and sound bodies who have been taught high ideals, honor, integrity, loyalty, and patriotism; who accept the responsibilities which accompany leadership; and who have sufficient professional knowledge to take their place in a competitive world.

These personal qualities must be deeply ingrained in the individual so that neither time nor troubles will diminish his respect for complying with the customs and traditions set forth for the fourth classman's conduct. Self-discipline and self-evaluation develop men whose integrity and sense of duty cause them to serve selflessly beyond the prescribed limits of their tasks.

The Fourth Class System is both difficult and demanding. It represents an abrupt change from the life normally experienced in the home and encompasses the entire period of a cadet's first year at The Citadel. It is administered impersonally and professionally. It requires a full measure of mental preparedness and physical endurance.

Because of the nature of the new cadet's training during his first weeks at The Citadel, physical demands upon him are necessarily great. Experience indicates that the cadet who, prior to admission, has conditioned himself physically is best able to meet the training requirements.

At the time of your medical examination, consult with your physician regarding your body weight. Particular attention should be given to estimated percent body fat, which provides a much more accurate figure for determining proper body weight than height/weight charts. If body weight loss appears to be indicated, follow your physician's advice relative to reducing caloric intake and increasing caloric expenditure.

The Charleston climate is generally conducive to year-round outdoor physical activity; however, the hot, humid conditions of August and September present several problems worthy of consideration. It is, therefore, important that you

prepare yourself by controlled exposure to similar conditions during exercise. Although complete acclimation may not be possible prior to your arrival at The Citadel, some adaptation will certainly occur. During periods of exercise, dress comfortably and avoid plastic/rubber or heavy cloth sweatsuits.

In preparation, it is advisable to begin with a light to moderate work load of jogging and walking for a 15- to 20-minute period, progressing to longer periods of jogging preceded and followed by calisthenics such as push-ups, bent-leg sit-ups, "jumping jacks," and 1/2 knee-bends. *Avoid such exercises as full-knee bends, straight-leg sit-ups, and straight-leg lifts.*

Continued progress should be made until 3 to 5 miles can be covered in approximately 25 to 40 minutes, respectively. Before, during, and following exercise, it is important to replace body fluids. This prevents dehydration, aids in heat loss, and prevents muscle cramps.

In addition, each applicant for entry into The Citadel should be assured through a medical examination that he has no history of physical ailments which could possibly cause his discharge due to inability to participate in the Fourth Class System.

The Fourth Class System by nature appears arbitrary on the surface. It demands prompt and unquestioning obedience of authority through the use of a collection of customs and traditions. However, each of the elements or customs has a special purpose in furthering a cadet's development.

The system includes standing at a rigid position of attention, turning square corners when walking, undergoing neatness inspections before formations, learning various items of fourth-class knowledge, working on approved company details such as minor chores incident to keeping one's own area of the barracks in order, and submitting to a variety of minor restrictions concerning the use of certain campus grounds and facilities, the wearing of the uniform, and the general conduct of a fourthclassman.

Cadets who are unable to meet the desired standards or violate one or more of the customs are subject to corrective action. This can range from a verbal reprimand to walking tours on the quadrangle of barracks and may include restriction to the limits of campus. In extreme cases, a cadet who is unable to conform to the military way of life may be brought before a suitability board to determine his fitness to continue at The Citadel.

The measures described above are designed to test a cadet's mettle and to determine his motivation for cadet life. Their value lies in developing a cadet's ability to perform his duty successfully under trying and stress-producing conditions.

Hazing is not a part of the Fourth Class System and is not tolerated. The suffering of degradation, humiliation, and indignity does not foster the rapid development of those qualities sought in fourthclassmen.

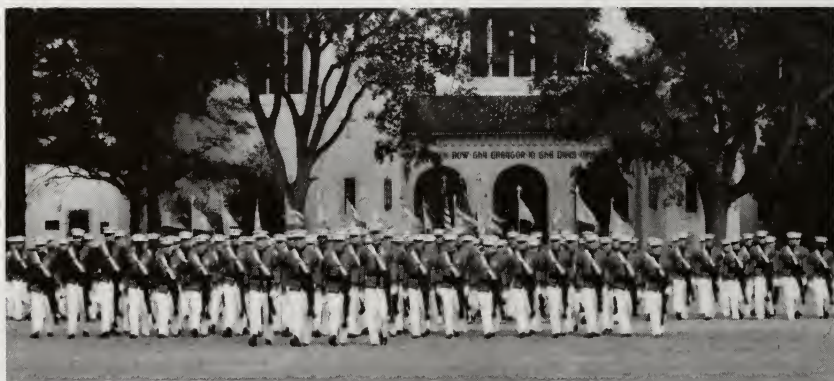
The Fourth Class System is a formidable challenge to any young man. The decision to enter The Citadel must be preceded by a conviction on the part of the prospective cadet and his parents that he has the mental and physical characteristics appropriate to the system and possesses a willingness to undergo the system's rigors with a determination to see it through and to reap its benefits.

Although the system is demanding and difficult, the rewards are considerable, and they more than justify the effort. At recognition by the upperclassmen in May, a better man emerges—one who is mentally, morally, physically, and spiritually prepared to accept the responsibilities of leadership which will ultimately be his at The Citadel and in the world.

Those students transferring from the national service academies (specifically the Military Academy, the Naval Academy, the Air Force Academy, the Coast Guard Academy, and the Merchant Marine Academy), Virginia Military Institute, or any other institution at which such students have:

- a. successfully completed their participation in a fourth class or plebe system;
- b. been full-time students in good standing in an ROTC program for the period of their enrollment at such an institution;
- c. been enrolled at any of the institutions listed above for a minimum of two semesters;

shall have the option of requesting a transfer out of the Fourth Class System after one semester at The Citadel, provided at that time they are at least academic sophomores. Eligible students exercising this option to transfer out of the Fourth Class system shall have no cadet rank, nor have any authority over the other fourthclassman for the balance of the academic year. All other transfer students will undergo a full year of the Fourth Class System at The Citadel. The Commandant of Cadets will make the final decisions on requests for transfer.



ROTC Programs

The Citadel offers commissioning opportunities in all branches of the armed services. While every cadet must successfully complete a course in one of four ROTC programs each semester, cadets are not required to enroll in any ROTC commissioning program nor are they required to accept a commission should it be offered.

ARMY ROTC PROGRAM

The Mission of the Army ROTC is to commission the future officer leadership of the U.S. Army and to motivate cadets to become better U.S. citizens. Commissioned officers may serve in the Regular Army, Army Reserve, or the National Guard.

Regardless of a cadet's academic major, there is an Army specialty that can fulfill his goals. Besides the combat arms specialties of Infantry, Armor, Field Artillery, Aviation, Air Defense Artillery, and Engineering, the active Army and the Army Reserves, and the National Guard have a need for officers in many technical and specialized areas.

U.S. Army ROTC Graduates

Graduates of The Citadel's Army ROTC program who accept a contract have the opportunity to serve their country in a variety of branches and specialties. Those cadets who have excelled academically and militarily, both in the classroom and at ROTC Advanced Camp, and who have clearly demonstrated high character and outstanding leadership ability will be selected as Distinguished Military Students.

Graduates may also have the opportunity to serve as Reserve officers either on Active Duty or as members of the United States Army Reserve or National Guard. Those cadets that excel and want to be assigned to Active Duty for three years can be guaranteed an Active Duty commission. Only The Citadel, VMI, Norwich or North Georgia College can make this guarantee. Those who desire to be in the National Guard or a Reserve unit will serve on Active Duty to complete their officer basic course and then serve as "citizen soldier" in a reserve or guard unit near their homes, graduate schools, or work or in the Individual Ready Reserve (IRR). No matter what type of option, the total obligation is eight years of Active and/or Reserve Duty.

Scholarships

The Army sponsors two-, three- and four-year scholarships for outstanding cadets who desire careers as officers in the United States Army. Each scholar-

ship provides for tuition, registration, college infirmary fees, laboratory fees, and an allowance for textbooks. In addition, the scholarship recipient receives a monetary subsistence allowance of \$100 a month for each academic year that the scholarship is in effect. Citadel academic scholarships may be available to help defray college expenses not covered by the ROTC Scholarship. In addition, The Citadel provides in-state four-year ROTC scholarship recipients a scholarship to cover the full catalogue cost per year. Out-of-state four-year scholarship recipients receive \$2,500 per year, and each three-year scholarship recipient receives free room in the first year and \$2,500 per year for his remaining three years. A table presenting the total amounts paid by the government and by the student who receives an ROTC scholarship is presented following the descriptions of the ROTC Programs.

Pay and Allowances

Cadets enrolled in the ROTC basic course (Freshman and Sophomore years) receive a uniform allowance credited of \$450 each year. Cadets who are in the advanced course (Junior and Senior years) and contract with the Army to be commissioned when they graduate will also have a uniform allowance of \$1,355 at the beginning of the junior year. In addition, those cadets who sign an Army contract during the advanced course will receive a \$100 allowance each month. Between their Junior and Senior years, all contracted cadets attend the six-week long Advanced Camp and receive one-half the base pay for a Second Lieutenant plus travel to and from camp from either Charleston or their home of record. Outstanding cadets may be selected to attend Airborne School, Air Assault School, Northern Warfare Training Center, Mountaineering, or Cadet Troop Leader Training (CTLT) with U.S. Army troop units at the pay scale mentioned above.

Formal Enrollment Requirements

The basic requirements for formal enrollment in the Army ROTC program must be fully met before the Professor of Military Science can consider a cadet for enrollment in the Army program (Cadets not meeting these standards are not eligible for commissions or ROTC monetary allowances.). To be eligible, a cadet must:

1. Be a citizen of the United States.
2. Be of good character. Cadets convicted by a civil or military court of offenses, other than minor traffic violations, are not eligible for enrollment without specific approval of the Department of the Army. A cadet may apply for a waiver of a conviction, provided the offense was nonrecurring and did not involve moral turpitude.
3. Maintain a satisfactory academic record (a 2.000 cumulative GPR is re-

quired for Advanced Camp attendance and commissioning).

4. Maintain a satisfactory disciplinary record and leadership rating (this rating is determined by the Professor of Military Science).
5. Pass the Army Physical Fitness Test (APFT) and maintain and meet the required height and weight standards.
6. Be physically qualified under Department of the Army standards.

Formal enrollment in the advanced course (final two years) and application for an Army contract requires each cadet to pass an Army administered physical examination, normally given during the spring of the third-class (sophomore) year. Waivers for physical defects are granted only in exceptional cases, and then only by authority of the Department of the Army. In addition, the applicant must pass an Army administered physical fitness test and complete one course in each of five different academic areas. These Professional Military Education courses, consist of a course in written communications, military history, computer science, mathematics, and human behavior. Courses meeting these requirements are approved by the Professor of Military Science and published at the beginning of each semester prior to registration.

NAVY/MARINE ROTC PROGRAM

The purpose of the Navy and Marine Corps NROTC Program at The Citadel is to educate and train cadets for professional service as officers in the U.S. Naval Services. Upon commissioning, graduates will serve on active duty as Reserve Officers. The Citadel's NROTC Program is unique in its ability to use the local Naval Base and Marine Corps facilities to support its program. Two programs leading to commissioning as ensigns (Navy) or second lieutenants (Marines) are offered:

1. The Navy/Marine Corps Scholarship Program includes selected Naval Scholarship cadets assigned to The Citadel who have their tuition and all or a major portion of their college expenses paid by the Navy Department and will be commissioned upon graduation.
2. The Naval ROTC College Program includes cadets who receive limited financial assistance during their junior and senior years and will be commissioned upon graduation.

Navy/Marine Scholarship Program

Navy/Marine Scholarship students are selected through national competition and attend one of the colleges or universities with Naval ROTC units. Each year a number of the Naval ROTC College Program cadets at The Citadel may receive direct scholarship appointments from the Chief of Naval Education and Training. The Naval Scholarship cadets attending The Citadel may enroll in any academic major offered by the college. However, emphasis will be placed upon engineering and science majors for those whose goal is a Navy commission.

These students attend three summer training periods with pay. In return, the Navy Department provides tuition, certain fees, all textbooks, a uniform allowance, and \$100 a month subsistence allowance. Upon graduation, Naval Scholarship cadets receive reserve commissions as ensigns in the U.S. Navy or second lieutenants in the U.S. Marine Corps and serve on active duty for a minimum of four years. While serving on their initial duty, they may apply for a regular commission and gain the opportunity to serve for a full career of active duty. Citadel academic scholarships may be available to help defray college expenses not covered by the ROTC Scholarship. In addition, The Citadel provides in-state four-year ROTC scholarship recipients a scholarship to cover the full catalogue cost per year. Out-of-state four-year scholarship recipients receive \$2,500 per year, and each three-year scholarship recipient receives free room in the first year and \$2,500 per year for his remaining three years. A table presenting the total amounts paid by the government and by the student who receives an ROTC scholarship is presented following the description of the ROTC Programs.

Naval ROTC College Program

The Naval ROTC College Program is offered for cadets who wish to earn commissions as officers in the U.S. Navy or U.S. Marine Corps. These Naval cadets may enroll in any academic major at The Citadel. College Program students must attend a minimum of one summer training cruise with pay. The Navy furnishes all naval science textbooks, provides an annual uniform allowance, and pays a monthly subsistence of, at least, \$100 a month during the junior and senior years. Upon graduation, these Naval cadets receive reserve commissions in the U.S. Navy or the U.S. Marine Corps and serve on active duty for a minimum of three years.

College Program cadets may compete in national competition for either Navy or Marine scholarships; additionally, they are eligible to compete for direct appointment to scholarship status through the Chief of Naval Education and Training.

Formal Enrollment Requirements

To be eligible for enrollment in the Naval ROTC program, a cadet must:

1. be a citizen of the United States;
2. have reached the 17th anniversary of his birth by June 30 of the year enrolled;
3. not have reached the 21st anniversary of his birth by June 30 of the year enrolled; and
4. be physically qualified (defective vision must be correctable to 20/20 and waivers for color blindness may be considered).

Those cadets not qualified for or not desirous of formal enrollment in either

the Scholarship or College Program may participate in Naval Science courses for academic credit only. They will not be eligible for appointment to a commissioned grade.

Selection of Navy/Marine Option

Naval cadets may, upon matriculation, exercise an option and indicate a desire for a commission in either the U.S. Navy or U.S. Marine Corps. This option must be exercised prior to the beginning of the junior year as the Navy and Marine curricula become independent during the last two years. All candidates for the Marine-option must have the recommendation of the Marine Officer Instructor and the approval of the Professor of Naval Science for enrollment.

NROTC Summer Training

Navy/Marine Scholarship cadets are required to perform training of approximately six weeks duration for each of the three summers between their freshman and senior years. Summer training is performed aboard operational ships of the fleet and at various Naval Bases. Naval cadets receive orientation in four naval warfare areas including surface warfare, submarine warfare, naval aviation, and Marine Corps amphibious warfare. During the third summer, candidates for U.S. Navy commissions perform their training aboard fleet operational ships, (midshipman cruises) serving as junior officers. Candidates for U.S. Marine Corps commissions perform their training at the U.S. Marine Corps Base, Quantico, Virginia.

Naval ROTC College Program cadets are required to perform one summer of training duty between the junior and senior years. The period of training is about six weeks. Candidates for commissions in the U.S. Navy normally will perform their training aboard operational ships (midshipman cruises) of the fleet. Candidates for commissions in the U.S. Marine Corps will perform their training at the U.S. Marine Corps Base, Quantico, Virginia.

Transportation costs to and from the sites of training and one-half of an ensign's or second lieutenant's pay will be paid to all participating Naval cadets.

Summary of Estimated Naval ROTC Allowances

Navy/Marine Scholarship Program:

Each scholarship pays tuition and registration, college, hospital, and laboratory fees outlined in this catalogue. The total amount of fees paid by the government and the amount which must be paid by the student are shown following the descriptions of ROTC programs. In addition to these fees, the following payments are also made by the Navy Department:

1. Uniform allowance—paid over three years;

2. Subsistence allowance—\$100 per month (up to 40 months) tax free;
3. Summer training pay—one-half of an ensign's or second lieutenant's pay for period of training;
4. Books—all books provided or paid for.

College Program

Navy Department reimbursements for students enrolled in the college program are:

1. Uniform allowance—paid over three years;
2. Subsistence allowance—\$100 per month (up to 20 months) tax free;
3. Summer training pay—one half of ensign's or second lieutenant's pay for period of training.

AIR FORCE ROTC PROGRAM

The mission of The Citadel's Air Force ROTC Detachment is to provide instruction, education, training, experience, and motivation to each cadet choosing the Air Force ROTC program and to ensure that each cadet possesses the knowledge, character, and qualities of leadership essential to an officer of the U.S. Air Force.

Emphasis is placed on the preparation of the dedicated professional who accepts responsibility readily, thinks critically and creatively, and writes and speaks effectively. The Air Force ROTC program at The Citadel is a major source of Air Force officers who possess these traits.

Citadel graduates have served both the Air Force and the nation well in war and peace. Today's Citadel cadets can be expected to assume important command and managerial positions in the aerospace forces of the United States.

Four-Year Program

The four-year Air Force ROTC program at The Citadel serves as a major commissioning route for young men interested in becoming officers in the U.S. Air Force.

Each student enrolls at the beginning of his freshman year, and during that first year, he studies the organization, mission, and functions of the U.S. defense establishment.

During the sophomore year, he will examine the development of air power during this century. Those cadets who are physically qualified and have maintained good academic standing may apply for entry into the advanced portion of the program. Each cadet desiring a commission will attend a four-week or six-week field training course between his sophomore and junior years.

Cadets enrolled in the Professional Officer Course, the last two years of the

Air Force curriculum, study communication skills, leadership in theory and practice, the principles and functions of management, and problem solving. The final year includes the military justice system, the role of the professional officer in a democratic society, the requisites for maintaining adequate national security forces, the constraints upon the national defense structure, the effect of technological and international developments on strategic preparedness, and an analysis of the defense policy making process.

Formal Enrollment Requirements

To be eligible to pursue a commission through the Air Force ROTC Program, a cadet must:

1. be a citizen of the United States;
2. maintain a satisfactory academic record;
3. be of good moral character;
4. sign a certificate of loyalty to the United States Government.
5. complete the General Military Course with a grade of C or better for each term (AERO 101/102 and 201/202);
6. be physically qualified;
7. agree to serve on active duty and/or reserve inactive duty for a specified period:
 - a. four years active duty and four years inactive reserve status for most;
 - b. eight years active duty for pilots and six years active duty for navigators after completion of Undergraduate Flying Training.
8. successfully complete a course in mathematics;
9. successfully complete a four or six-week field training course.

Field Training

Citadel cadets pursuing a commission through AFROTC are required to attend a four-week or six-week training course at an Air Force base during the summer between the sophomore and junior years. For all cadets, this is a memorable experience because they get a close look at Air Force life and operations. Each cadet receives practical guidance in junior officer training, aircraft and aircrew orientation, small-arms familiarization, physical training, survival training, career opportunities, and training in other areas needed by the Air Force professional.

Base Visits

The vast scope of the United States Air Force is difficult to portray in the classroom. In partial compensation, the Air Force ROTC detachment at The Citadel takes its cadets to the Air Force—in the form of visits to Air Force bases. On these trips the cadets receive briefings on base activities, observe Air

Force operations firsthand, and, as a highlight, are offered orientation rides in jet aircraft. They return to school with a more accurate perspective of the global nature of the organization in which they may serve. Experience has shown these visits are of considerable value in developing the cadets' appreciation of the Air Force officers' challenging career.

Pay and Allowances

A cadet selected for the Professional Officer Course will be provided subsistence pay at the rate of \$100 per month beginning on the day he starts advanced training and ending upon the completion of his instruction. In no event shall any cadet receive such pay for more than 20 months.

AFROTC College Scholarship Program

To attract the highest quality students, Air Force ROTC is authorized to grant scholarships which provide full tuition, registration fees, college fees, hospital fees, laboratory fees, and a textbook allowance. Uniform allowances are also paid to cadets at The Citadel. Scholarship recipients are paid a tax-free subsistence of \$100 per month. Cadets attending The Citadel or desiring to attend are eligible to compete for these four-, three-, and two-year AFROTC scholarships. Selections are made on the basis of the student's academics, officer aptitude as reflected on the Air Force Officer Qualifying Test, SAT scores, medical examination, demonstrated performances, and an interview by a panel of active duty officers. Citadel academic scholarships may be available to help defray college expenses not covered by the ROTC Scholarship. In addition, The Citadel provides in-state four-year ROTC scholarship recipients a scholarship to cover the full catalogue cost per year. Out-of-state four-year scholarship recipients receive \$2,500 per year, and each three-year scholarship recipient receive free room in the first year and \$2,500 per year for his remaining three years. A table presenting the total amounts paid by the government and by the student who receives an ROTC scholarship is presented following the description of the ROTC Programs.

AFROTC Scholarship recipients must successfully complete at least one year of instruction in a major Indo-European or Asian language. Demonstration of foreign language proficiency can be used to satisfy this requirement.

COLLEGE COSTS COVERED BY ROTC SCHOLARSHIP

For South Carolina Students

Freshmen	Total	Amount Paid By Government	Amount Paid By Student
First Semester	\$6,410.00	\$1,538.00	\$4,872.00
Second Semester	<u>\$3,760.00</u>	<u>\$1,538.00</u>	<u>\$2,222.00</u>
Total	\$10,170.00	\$3,076.00	\$7,094.00
Sophomores			
First Semester	\$4,060.00	\$1,538.00	\$2,522.00
Second Semester	<u>\$3,840.00</u>	<u>\$1,538.00</u>	<u>\$2,302.00</u>
Total	\$7,900.00	\$3,076.00	\$4,824.00
Juniors			
First Semester	\$4,005.00	\$1,538.00	\$2,467.00
Second Semester	<u>\$3,805.00</u>	<u>\$1,538.00</u>	<u>\$2,267.00</u>
Total	\$7,810.00	\$3,076.00	\$4,734.00
Seniors			
First Semester	\$3,970.00	\$1,538.00	\$2,432.00
Second Semester	<u>\$3,785.00</u>	<u>\$1,538.00</u>	<u>\$2,247.00</u>
Total	\$7,755.00	\$3,076.00	\$4,679.00

For Out-of-State Students

Freshmen	Total	Amount Paid By Government	Amount Paid By Student
First Semester	\$8,407.00	\$3,535.00	\$4,872.00
Second Semester	<u>\$5,757.00</u>	<u>\$3,535.00</u>	<u>\$2,222.00</u>
Total	\$14,164.00	\$7,070.00	\$7,094.00
Sophomores			
First Semester	\$6,057.00	\$3,535.00	\$2,522.00
Second Semester	<u>\$5,837.00</u>	<u>\$3,535.00</u>	<u>\$2,302.00</u>
Total	\$11,894.00	\$7,070.00	\$4,824.00
Juniors			
First Semester	\$6,002.00	\$3,535.00	\$2,467.00
Second Semester	<u>\$5,802.00</u>	<u>\$3,535.00</u>	<u>\$2,267.00</u>
Total	\$11,804.00	\$7,070.00	\$4,734.00
Seniors			
First Semester	\$5,967.00	\$3,535.00	\$2,432.00
Second Semester	<u>\$5,782.00</u>	<u>\$3,535.00</u>	<u>\$2,247.00</u>
Total	\$11,749.00	\$7,070.00	\$4,679.00

Expenses

The Citadel, The Military College of South Carolina, is supported by the State of South Carolina. The costs of operation are underwritten through fees collected from the students and appropriations made by the General Assembly of South Carolina. Nonresidents are required to pay a larger portion of the costs of their education than is required of residents of South Carolina.

The Citadel Treasurer is responsible for the collection of monies due The Citadel. All correspondence concerning fees, payments, and status of accounts should be directed to that office. If referral to a collection agency is required for overdrawn accounts, the amount referred will include the collection agency fee.

Fees

The fees shown below are required to be paid by all students who attend The Citadel in the day program. Active duty military personnel assigned to military units for educational purposes pay the same fee except for auxiliary and barracks project fees. Please note that the required fees at The Citadel include all normal expenses to be incurred by a student including dry cleaning, laundry, room, board, and infirmary care. The college reserves the right to adjust fees to meet the current cost of operation should it become necessary. This applies to all educational programs at The Citadel.

Expenses for South Carolina Students*

Registration	\$ 25.00
Tuition Fee	125.00
College Fee	2,239.00
Athletic Fee	263.00
Plant Improvement Fee	134.00
Auxiliary Services	3,174.00
Barracks Project Fee	900.00
Total Fees:	\$6,860.00

Expenses for Out-of-State Students

Registration Fee	\$ 25.00
Tuition Fee	385.00
College Fee	5,639.00
Athletic Fee	597.00
Plant Improvement Fee	134.00
Auxiliary Services	3,174.00
Barracks Project Fee	900.00
Total Fees:	\$10,854.00

*South Carolina residents are those persons who meet the residency requirements specified in the South Carolina Code of Laws, Act #466-1978 and amendments thereto. All other persons must pay out-of-state fees.

All fees and deposits are due and payable by semester, prior to the date of reporting to school for registration. Payments of fees are due as shown on the table presented later in this section. Failure to pay the invoice or any part thereof subjects the student to being dropped from enrollment at The Citadel. Bills for the regular academic year will be sent to parents or guardians approximately one month prior to the due date. All remittances should be by money order or check, made payable to The Citadel, and mailed to the Treasurer, The Citadel, 171 Moultrie Street, Charleston, South Carolina 29409. The Citadel assesses late payment charge on all unpaid balances.

Parents or legal guardians are responsible for payment of all fees and overdrafts, unless the Treasurer is notified prior to due dates that the student or some other party has assumed this responsibility.

Information relative to financing educational fees on a monthly installment basis may be secured by writing to the Treasurer at The Citadel. The Treasurer also has information concerning financing educational fees through loans other than the guaranteed student loan. Financing arrangements require time for processing, so it is essential that application be made as early as possible in the school year.

Overdrawn Accounts: A student whose account is overdrawn will not be issued or be allowed to send copies of his official transcript, be issued a diploma, or be permitted to enroll in additional course work until satisfactory settlement of the account has been made.

Non-negotiable Checks: There will be a handling charge of \$15 for a non-negotiable check. The college will pursue collection procedures as provided by the laws of the State of South Carolina. The Citadel will not accept personal checks from individuals who have issued two non-negotiable checks or one non-negotiable check which has not been redeemed.

Depository: The uniform, books, supplies, and accessories deposit does not provide for a cadet's personal needs. All allowances for personal needs should be determined by parents and sent directly to the cadet. Cadets receiving substantial allowances for their personal needs can deposit this money in The Citadel Depository. This depository is like a bank account. Cadets may withdraw up to \$100.00 cash from their depository accounts in a day. A service charge is assessed each semester to offset the cost of operation of the depository. The Citadel Depository is located in the Treasurer's Office.

Explanation of Deposits

Deposits for Books, Supplies, Uniforms, and Accessories: In addition to the fees

previously described, each cadet is required to deposit funds to his account to cover the estimated cost of books, supplies, uniforms, accessories, alterations to uniforms, haircuts, personal items, engineering drawing equipment and supplies, and other miscellaneous expenses relevant to his studies or attendance at The Citadel. The amount of the deposit has been estimated based upon average needs of a cadet. If the deposit should be exceeded, additional funds will have to be added.

The required deposits are as follows:

Freshmen			
Uniforms	\$2,510		
Books, Supplies, and Accessories	800		
			\$3,310
Sophomores			
Uniforms	\$465		
Books, Supplies, and Accessories	575		
			\$1,040
Juniors			
Uniforms	\$345		
Books, Supplies, and Accessories	605		
			\$950
Seniors			
Uniforms	\$265		
Books, Supplies, and Accessories	630		
			\$895

Books, Supplies, and Accessories: This deposit has been kept to a minimum to cover only necessary educational requirements. Different academic majors may require other expenditures which are unique to that major field.

Uniforms: All cadets are required to wear The Citadel uniform which is issued by the college. New cadets are required to be outfitted in new outer uniforms and uniform accessories issued by the college. New cadets should not bring a supply of civilian clothes other than those which are worn upon reporting to the college, as they are not permitted to wear civilian clothes except during authorized furloughs.

The cost of uniforms, although a paid fee, should be viewed as a clothing expense which is incidental to attending any college. With proper care, the uniform should last for several years. Of course, the requirements during the subsequent years will depend on the manner in which the cadet has cared for his uniform. The overall cost of the uniform should not exceed that which would be

incurred in purchasing clothes to attend a civilian college. Additional sets of uniforms may be purchased as desired (for cash) in the Cadet Store.

The woolen uniforms issued to cadets are custom-made for The Citadel. Once the uniforms have been fitted to a cadet, the entire cost will be charged to him. Since the uniforms are tailor-made to the measurements of each cadet after enrolling at The Citadel, every cadet withdrawing from college will be charged a fee for canceling the purchase of the uniforms.

In order to keep the appearance of the Corps of Cadets at the highest level, an inspection will be made of the uniforms of members of the sophomore, junior, and senior classes at the beginning of the school year. If the uniforms do not meet the minimum standards of appearance, the individual will be required to purchase replacements for unserviceable uniform items.

The required deposits will not permit the purchase of nonessential, nonrelated educational items. Therefore, a student will not be permitted to charge such items as blazer ensembles, class rings, swords, magazine subscriptions or paperbacks not required for an academic course, etc., unless it is determined by review of the cadet's student account that such purchase or charge would not cause his account to be overdrawn.

Students who have been awarded a full athletic grant-in-aid require approval from the Athletic Department for all purchases to be charged to the deposit account.

Statement of Student's Account

A statement of students' accounts will be furnished upon request. *It is incumbent upon the student to verify each charge or credit made to his account.*

Any unexpended balance will be returned upon request at the close of the academic year; otherwise, it will be held until the next academic year, or until the student withdraws or graduates from The Citadel.

A parent or guardian of a cadet must request the refund. Full athletic grant-in-aid and full academic scholarship recipients are not authorized to receive a refund. Balances in accounts of full athletic grant-in-aid recipients are refunded to the Athletic Department annually.

Explanation of Fees

Room Deposit: A room deposit of \$100 is required of all cadets. This is not an additional charge but is an advance payment toward the fees due for the fall semester and will be shown as a credit on the first semester bill. It assures a cadet a place in the Corps of Cadets and barracks for the following August, if the student's account from the previous semester is clear.

All new cadets are required to pay the room deposit and a \$50.00 breakage deposit within 15 days after notice of acceptance has been received from the

Admissions Office.

A cadet currently enrolled who plans to continue his education at The Citadel is required to pay the room deposit not later than July 1 for the fall semester. If this deposit is not paid by July 1 and his student account cleared from the previous semester, The Citadel is not obligated to permit him to continue his education at The Citadel.

Room deposits will be refunded to currently enrolled cadets who notify the Registrar in writing not later than July 1 to cancel their reservations at The Citadel.

After July 1, this deposit will be refunded only to those upperclassmen (sophomores, juniors, and seniors) who have been dropped from enrollment at The Citadel.

Auxiliary Services Fee: A fee of \$4,074.00 per academic year is assessed each student to cover room, board, laundry, dry cleaning, and normal infirmary care. For the purpose of loan applications, costs for room and board should be shown as \$3,339.00 and laundry, dry cleaning, and infirmary as \$735.00.

Due to many uncontrollable factors, the college reserves the right to increase this auxiliary fee at any time to meet current increases in the cost of operation. This fee is refundable upon withdrawal from school as shown later in this section.

Breakage Deposit: A \$50 deposit will be maintained for each cadet. When there is insufficient money in the cadet's account to cover the cost of damages to buildings, rooms, equipment, or loss of ROTC manuals or government property, this deposit will be used. The unused portion is refundable after graduation or withdrawal from The Citadel.

Diploma Fee: The charge for a diploma for graduating seniors is \$55. A \$60 fee will be charged for duplicate diplomas.

Transcript Fee: Official transcripts of scholastic records will be furnished only upon written request. There is no charge for the initial transcript, but a fee of \$3 is charged for each subsequent transcript requested. Remittances for transcripts should accompany the application for the transcript and should be mailed to the Registrar (checks payable to The Citadel).

Laboratory/Orientation Fees: Laboratory/Orientation Fees are charged students taking certain designated courses or orientation programs. Fees are billed as part of the preregistered course load. If added after billing, these fees are chargeable against the books, supplies, and accessories deposit.

Schedule for Payments for South Carolina Residents

<i>Due Date</i>	<i>Freshmen</i>	<i>Sophomores</i>	<i>Juniors</i>	<i>Seniors</i>
Room and Breakage				
Deposits within 15 days of notice of acceptance	\$150.00			
Room Deposit on or before July 1		\$100.00	\$100.00	\$100.00
First Semester Fees & Deposit* 8/5/94	6,410.00	4,060.00	4,005.00	3,970.00
Second Semester Fees & Deposit 12/23/94	3,760.00	3,840.00	3,805.00	3,785.00
Total Academic Year**	\$10,170.00	\$7,900.00	\$7,810.00	\$7,755.00

Schedule for Payments for Out-of-State Residents

<i>Due Date</i>	<i>Freshmen</i>	<i>Sophomores</i>	<i>Juniors</i>	<i>Seniors</i>
Room and Breakage				
Deposits within 15 days of notice of acceptance	\$150.00			
Room Deposit on or before July 1		\$100.00	\$100.00	\$100.00
First Semester Fees & Deposit* 8/5/94	8,407.00	6,057.00	6,002.00	5,967.00
Second Semester Fees & Deposit 12/23/94	5,757.00	5,837.00	5,802.00	5,782.00
Total Academic Year**	\$14,164.00	\$11,894.00	\$11,804.00	\$11,749.00

*NOTE: The \$100 Room Deposit will be credited against this amount.

**NOTE: Total payment includes deposits on uniforms, books, supplies, and accessories.

Refunds

The Citadel is committed to many expenses based upon the anticipated enrollment of a student at the beginning of each semester. Registration at The Citadel is considered to be a contract binding the student and his parent or guardian to charges for the entire semester.

However, students who withdraw during a semester may receive partial refunds based on the length of attendance. Refunds will be computed from required reporting date until withdrawal date as determined by the Registrar. No refunds will be made for less than \$1.00.

Authorized refunds are as follows:

Tuition, College, and Auxiliary Services Fees (except Room and Board Fees):

<i>Length of enrollment</i>	<i>Semester fees refunded</i>
less than one week*	80%
one to two weeks	60%
two to three weeks	40%
three to four weeks	25%
after four weeks	none

*NOTE: Freshman cadets who leave during Freshman Orientation Week are eligible for a 90% refund of all fees, except board fees.

Room Fee:

The \$100 room deposit is forfeited. The remaining amount of the room fee is refunded as follows:

<i>Length of enrollment</i>	<i>Semester fees refunded</i>
less than one week*	80%
one to two weeks	60%
after two weeks	none

*NOTE: Freshman cadets who leave during Freshman Orientation Week are eligible for 90% refund of room fees, other than the \$100 deposit. In addition, prorated refunds are issued for first time students who are awarded federal financial assistance.

Board Fees:

Board fees will be computed on a weekly basis, and refunds will equal one-half the unused balance.

Deposits for Uniforms, Books, Supplies, and Accessories:

The unused portion of the deposit to the student's account for uniforms, books, supplies, and accessories will be refunded.

Refunds will be mailed within 45 days after discharge. When appropriate, May graduates will receive a check for the credit in their accounts within 30 days after graduation.

Financial Aid and Scholarships

The purpose of student financial aid is to enable qualified students to attend The Citadel regardless of the expense. Any student who is accepted for admission is eligible to request financial assistance. However, there are several general eligibility requirements you must meet to receive federal financial aid.

Admission Status. You must be admitted to The Citadel as a regular or conditional student.

Citizenship. You must be a U.S. citizen or a national or permanent resident.

Default. You may not receive aid if you are in default at any institution on any Federal Student Loan Program.

Enrollment. Generally, you must be enrolled at least half-time (6 hours).

Repayment. You may not receive aid if you owe a repayment at any institution on a Pell Grant, Supplemental Grant, or State Student Incentive Grant.

Satisfactory Academic Progress. You must have a minimum grade point average and you must make satisfactory progress toward a degree to continue to receive aid. (See section in this guide for a full definition of satisfactory progress.)

FORMS AND DEADLINES

To apply for financial aid at The Citadel, all students should file a *Free Application for Federal Student Aid* (FAFSA) as soon as possible after January 1.

These forms are available from your high school or by contacting a financial aid officer at any postsecondary school or college. Other forms which must be completed include a signed Student Aid Report (SAR, all copies), financial aid transcript(s) for each postsecondary institution attended, and default and selective service statements. Additional information may be requested by the Financial Aid Office and should be submitted promptly.

Because funds are limited, those students whose applications are completed after the deadline dates will receive consideration for aid as funds permit. Deadline dates are as follows:

Academic year (fall and spring)	March 15
Fall only	March 15
Spring only	October 15
Summer	March 15

Applicants whose forms are not completed by June 30 should not expect to receive notification of awards prior to the beginning of fall semester. These applicants must come prepared to pay for their tuition, fees, and room and board costs and will be reimbursed if they are subsequently determined to be eligible for financial aid.

DETERMINING FINANCIAL NEED

The amount of financial aid you will receive is determined by the FAFSA form you file after January each year. This form gathers information about your family's current financial situation and produces an "expected family contribution." Adjusted gross income data from tax forms are used along with current asset information to determine family resources. Allowances for federal and state taxes, social security, employment (when both parents work), unusual medical and dental expenses, and family size are made. Other factors considered are any unusual expenses and the number of family members in college.

In its simplest definition, your financial need is the difference in what you will pay to attend college and your expected family contribution, as determined by the need analysis. If your costs exceed the amount of your contribution, then you have "demonstrated" financial need. The formula looks like this:

$$\begin{array}{r}
 \$XXXX. \text{ your cost of attendance} \\
 -XXXX. \text{ expected family contribution} \\
 \hline
 \$XXXX. \text{ YOUR FINANCIAL NEED}
 \end{array}$$

DEPENDENT OR INDEPENDENT

Federal student aid programs are based on the premise that parents have the primary responsibility of financing their children's education. Independent students will fall into one of the following categories.

- I. Students are automatically independent and therefore not required to submit parental data if they:
 - a. Are 24 years old and older, by Dec 31 of Award Year or
 - b. Are orphans or wards of the court, or
 - c. Are veterans of the armed forces, or
 - d. Have legal dependents (other than a spouse), or
 - e. Are a graduate or professional student, or
 - f. Are married, or
 - g. A student who has other unusual circumstances.

SATISFACTORY PROGRESS

To be eligible to receive or remain eligible to receive financial aid, students must maintain "satisfactory progress" in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of each 12

month period of enrollment.

In general a student attending full-time must pass 24 hours each year and maintain the minimum grade point ratio as outlined.

Quality Hours Plus Transfer Hours	Grade Point Ratio for Continuance (on probation)	Grade Point Ratio for Continuance (without probation)
0-39	1.100	1.300
40-69	1.400	1.600
70-99	1.700	1.800
100 & above	1.900	2.000

When mitigating circumstances exist, students whose aid is terminated because of failure to meet satisfactory progress standards may reapply by contacting the Financial Aid Committee in writing at the following address:

Chairman
The Citadel Financial Aid Committee
c/o Office of Financial Aid and Scholarships
The Citadel
171 Moultrie Street
Charleston, SC 29409

FINANCIAL AID REFUND AND

REPAYMENT POLICY

I. Refunds

Financial aid recipients who withdraw from school are eligible to receive only that portion of the institutionally determined refund (see the Expenses section of this catalogue) which exceeds the financial aid received. Refunds will be returned to the programs from which the student received aid. The following fraction will be used to determine the portion of the refund to be returned to the Title IV program(s): (Fed. Reg. Dec. 1, 1987, Sect. 668.2). Total aid includes both federally funded and institutionally funded aid.

Total Title IV Aid (minus FWSP)

Total Aid Awarded (minus FWSP)

The resulting fraction is applied to the institutional refund and the resulting amount (rounded to nearest whole dollar) is the amount of funds to be returned to Title IV program(s).

II. Repayments

Regarding cash refunds received prior to withdrawal, if a student's non-instructional educational expenses (allowances as prescribed below) incurred up to the time of withdrawal exceeded the amount of cash disbursement, the student does not owe a repayment. If cash disbursed exceeds the non-instructional costs of education incurred up to the time of withdrawal, the student does owe a repayment. This repayment is the difference between expenses incurred and the actual cash refund received. Non-instructional expenses are determined by calculating the percentage of room, board, books, supplies, travel, and personal expenses incurred during the portion of the term a student is enrolled. Off-campus board and personal expenses are prorated on a weekly basis. There is no proration of on-campus room charges. A percentage of books, supplies, and travel costs are allowed based on length of enrollment. In determining the amount of overpayment to be returned to the Title IV program(s), the following fraction is applied:

Total Title IV Aid (minus Federal Family Loan Programs)

Total Aid Awarded (minus Federal Family Loan Programs)

III. Student aid accounts to be refunded and repaid

Once the amounts to be refunded and/or repaid are determined by the fraction formulas explained, the proper amounts shall be refunded/repaid according to the priority list that follows. No one account shall be refunded/repaid with more than the amount received from the account for the term of withdrawal.

1. Federal Family Loan Programs, Federal Perkins
2. Federal Pell Grant
3. Federal SEOG
4. Other Aid
5. Student

TYPES OF FINANCIAL AID GRANTS

The Federal Pell Grant Program

The Federal Pell Grant program provides federal grants for eligible under-

graduate students. Eligibility is determined by the Free Application for Federal Student Aid (FAFSA) using a nationally mandated formula applied uniformly to all applicants. Students must demonstrate satisfactory progress toward a degree each year to receive a Pell Grant in the next academic term.

The Citadel participates in the Department of Education's Electronic Data Exchange (EDE) program which provides the student and institution with faster processing of applications. When a student completes the FAFSA his eligibility for a Federal Pell Grant is determined by the processor and a paper Student Aid Report (SAR) is generated and mailed to the home address. The student should sign the SAR and return it to the institution. At the same time a Electronic SAR is generated to the school. If corrections need to be made on the application the institution can send the corrections electronically and have the results within 48 hours instead of the 2-3 weeks previously required. The processor will return to the school an Electronic Student Aid Report (ESAR) which then must be signed by the student and parent or spouse.

The Federal Supplemental Educational Opportunity Grant (SEOG)

The SEOG program provides aid to students who qualify for Pell Grants and who show exceptional financial need. These grants range in value from \$300 to \$1,000 per academic year, the average award being \$500.

Athletic Grants-in-Aid

These grants are awarded to qualified students selected by members of the coaching staff. Additional information may be obtained by writing to the Director of Athletics.

WORK PROGRAMS

The Federal Work Study Program

This program, which is federally funded, provides part-time employment to qualifying students. Students are paid on an hourly basis, not less than the federal minimum wage. Paychecks for hours worked are issued biweekly directly to the student.

The Institutional Work Program

This program makes funds available for student jobs on campus. These jobs are available in a variety of academic and administrative offices. Students do not need to "qualify" for these positions, as they are not federally funded. Inquiries should be directed to the Personnel Office.

LOANS

The Federal Perkins Loan Program

The Perkins loan program provides needy students with long term, low interest loans for educational expenses. Loans range from \$300 to \$3,000 per year. The interest rate is five percent. Federal legislation requires institutions to make Perkins Loans available first to students with exceptional financial need. Full-time undergraduate applicants are given priority when funds are limited.

Repayment begins following a grace period of nine months after graduation or termination of enrollment on at least a half-time basis. Students may be allowed up to ten years to repay based upon the amount borrowed, with a \$40 per month minimum payment required. Loan repayment may also be deferred for specific reasons.

There are also cancellation provisions for borrowers who enter specific fields of teaching, teach in designated schools, serve in an area of hostilities, volunteer under the Peace Corps or the Domestic Volunteer Service Act of 1973, or serve as a law enforcement or corrections officer.

The Federal Stafford Loan Program

The Stafford Loan program (formerly GSL) provides students with long term low interest loans. Both subsidized and unsubsidized Stafford Loans are available. The federal government "subsidizes" a loan by paying the interest while the student is in school. For an unsubsidized loan the government does not provide the subsidy; therefore, interest on the loan accrues while the student is enrolled. Another difference between these two loans is that the family contribution is taken into consideration when determining a student's need for a subsidized loan. Eligibility for an unsubsidized loan does not consider the family contribution.

The maximum amounts that a student may borrow, combined subsidized and unsubsidized, may not exceed \$2,625 for a student who has not completed the first year of a program, \$3,500 for a student who has completed the first year but not the second, and \$5,500 for the remaining years of undergraduate study not to exceed an aggregate maximum of \$23,000. A graduate student may borrow up to \$8,500 annually with an aggregate of \$65,000 including amounts borrowed as an undergraduate student.

The interest rate on a Stafford Loan for students borrowing for the first time after October 1, 1992 is variable, annually, and is tied to the 91-day Treasury bill, the maximum interest rate is 8.25%.

The Federal Parent Loan for Undergraduate Students (FPLUS)

Under the Federal PLUS program parents of dependent undergraduate students may borrow up to the difference between the student's cost of attendance

and estimated financial assistance annually for each dependent student. There is no aggregate maximum under this program.

The interest rate on PLUS Loans is variable and is determined annually by a formula linked to the yearly Treasury bill rates. However, the interest rate may not exceed 10%. Repayment begins 60 days after disbursement.

South Carolina Teacher Loan Program

This loan program is intended to attract talented teachers to remain in South Carolina by offering a cancellation of their student loan. A loan recipient who becomes certified to teach in a subject area of critical need or in a designated school district, will have the loan cancelled at the rate of 20% for each full year of teaching up to 100%. To qualify, the student must be a resident of South Carolina attending college for the purpose of becoming a certified teacher. Employment must be in the state's public school system in an area of critical need as defined by the State Board of Education. Loan recipients who do not become certified or do not teach in an area of critical need repay the entire amount of the loan plus interest.

Because funds in the program are limited, there is a priority processing deadline of April 1. To ensure that your application is received at the South Carolina Student Loan Corporation by the deadline, you must submit it to the Office of Financial Aid and Scholarships no later than March 15.

Governor's Teaching Scholarship Loan Program

Also established by the State of South Carolina, the Governor's Loan Program was established to attract bright and talented South Carolina students to the teaching profession. These loans are cancelled at a rate of 20% for each year a recipient teaches in the public schools of South Carolina. Applications are available by contacting the S.C. Student Loan Corporation, P.O. Box 21487, Columbia, SC 29221.

Paul Douglas Scholarship Loan

The Paul Douglas Scholarship (PDS) is a loan/scholarship program established for outstanding high school graduates to encourage and enable them to pursue teaching careers at the preschool, elementary, or secondary level. Maximum loan amount are \$5,000 per year. Selection is based on academic performance, evidence of leadership, extracurricular participation, and the promise of service as a teacher at the preschool, elementary, or secondary level. A recipient must be a South Carolina resident or non-resident attending a South Carolina institution. These loans are cancelled at two years teaching for each year of scholarship. Applications are available by contacting the S.C. Student Loan Corporation, P.O. Box 21487, Columbia, SC 29221.

SCHOLARSHIPS

The purpose of The Citadel's scholarship program is to attract outstanding high school graduates to the college, reward undergraduate academic excellence, and assist those worthy students who desire financial assistance to complete their college education.

Annually, The Citadel awards more than 1.5 million dollars in academic scholarships to entering freshmen and upperclassmen. More than 25 full academic scholarships covering all catalogue costs are awarded to entering freshmen.

How to Apply

An application for a Citadel scholarship must be obtained from the Office of Financial Aid and Scholarships. It must be returned to this office by January 15th for entering freshmen and by February 1st for upperclassmen.

With this one scholarship application, the applicant is considered for all scholarships.

Since a number of scholarships specify "need" as a condition of that award, it is recommended that an applicant file a confidential *Free Application for Federal Student Aid*. It takes The Citadel approximately four weeks to receive results from this evaluation, once it has been filed.

Determination of Awards

All scholarship applications and documents are carefully considered by the Scholarship Committee. Each application is evaluated and ranked objectively with consideration given to class standing, grade point ratio, SAT or ACT scores, personal achievement and leadership potential.

Many scholarships contain restrictions as stipulated in deeds of trust. It is the intent of The Citadel to match the most qualified scholarship candidates to such restrictions.

Awards

Most scholarship candidates will be notified by April 30th as to the scholarship(s) received, whether a candidate is an alternate, or whether no scholarship funds will be offered for the next academic year.

All scholarships must be applied for on an annual basis, except for full academic scholarships and those scholarships whose deeds of trust specify multi-year awards. Listed below are some of the current scholarships awarded by The Citadel:

The Captain William Forman Abernethy Memorial Scholarship has a value of \$1,000. It is awarded annually to the rising senior who has shown the greatest determination and perseverance in improving himself during his years at The Citadel.

The Abney Foundation Scholarships were established in 1990 with a significant gift from that foundation. Recipients must demonstrate financial need in addition to showing "academic potential."

The Joe E. Adams, Sr., Class of 1922, Scholarship was established in his memory by his son, Joe E. Adams, Jr., Class of 1955. This award is restricted to members (or dependents of members) of the Main Street United Methodist Church, Greenwood, South Carolina. Its value is approximately \$1,000 a year for four years.

The Joseph D. Aiken Scholarships cover all expenses, as outlined in the catalogue, for the first three years and are supported by a trust fund made possible by a bequest of the late Mr. Joseph D. Aiken. They are limited to applicants from the New England states, with some preference given to Rhode Island and Connecticut residents.

The Maurice Albright Scholarship Fund was established in 1985 through a contribution from Thomas A. Albright, Class of 1978. The fund is named in memory of Maurice Albright.

The Lillian Malone and her son, Edgar Stanton Alexander, Scholarship was established by Mr. Dietrich Biemann Alexander, Class of 1922. This scholarship is restricted to a cadet from Greenwood County, South Carolina.

The Harold B. Alexander Scholarship Fund was established in 1991 with a gift from Mr. and Mrs. Gerald J. Teitman. The recipient of this scholarship shall be a U.S. citizen, a liberal arts major, and a rising junior with a minimum grade point average of 3.0.

The William A. Altman, Jr., Scholarship was established in 1982 by William A. Altman, Jr., Class of 1931. The scholarship is restricted to residents of South Carolina, or the son of a South Carolina native, who has financial need.

The Marietta V. and Howard W. Alton, Jr. Scholarship(s) were established in 1991 by Marietta V. Alton to honor Howard W. Alton, Jr., Class of 1959. Preference is given to cadets who have participated in high school varsity sports and who are residents of Texas, Arkansas or Arizona. Also, preference shall be given to

candidates who are in or who have been retired from the U.S. Armed Forces.

The American Public Works Association Scholarship was established by the South Carolina chapter of that association. It pays \$500 a year to a senior civil engineering student who has financial need and is a resident of South Carolina.

The General Wallace E. Anderson Scholarships were established by contributions from General Anderson and friends. These scholarships are restricted to cadet Physics majors and are awarded upon recommendations from the Department of Physics.

The Fred J. Attaway, III, Scholarship was established by Mr. and Mrs. Fred J. Attaway, Jr., in memory of their son, Class of 1972. This scholarship is awarded annually.

The Major James W. Ayers Scholarship is in memory of Major Ayers, Class of 1957, who lost his life in the service of his country in Vietnam. It is given to an entering freshman, with preference to a resident of Berkeley County, interested in becoming a member of the United States Marine Corps upon graduation. The value is up to \$500 a year for four years.

The M. Ralph Bagnal, Jr., Scholarship was established in 1983 by the Builders Association of the Midlands located in Columbia, South Carolina, in memory of Mr. M. Ralph Bagnal, Jr.'s, Class of 1947. The scholarship is restricted to incoming freshman cadets from the state of South Carolina and preferably from the Columbia area. The recipient should be active in the framework of the Citadel Religious Community.

The Barnhill-Harley Scholarships were bequeathed by the late Edward Stanley Barnhill for qualified and deserving students.

The Baruch Scholarships, with a value of \$500 to \$1,000 each for one year, were inaugurated from the income of a fund donated to The Citadel by the late Mr. Bernard Baruch. These scholarships are awarded annually to juniors and seniors.

The Robert D. and Judith M. Bates Scholarships have been endowed to assist financially disadvantaged students, who require financial assistance and are upper-classmen. Half of all awards are to be made to minority students who are U.S. citizens.

The Annie Wysong Benson - Nana Mae Richter Mizell Scholarship was estab-

lished in 1983 by John C. Benson, Class of 1943, and his wife, Sara Katharine, in honor and memory of their mothers. This scholarship is restricted to cadets majoring in business administration or political science who are average students (i.e. high C's to medium B's). Fifth year students may be considered. If a rising junior has three brothers who have graduated from The Citadel or two brothers have graduated and a third brother in the Corps, he will automatically qualify excluding the above restrictions. The recipient should be active within the framework of the Citadel Religious Community.

The W. W. Benson Scholarship pays all expenses, as outlined in the catalogue. Named in memory of the late Major W. W. Benson, Class of 1907, it is supported by his friends from Greenwood County, South Carolina. Preference is given to athletes from the Greenwood area or from South Carolina.

The Bethea Scholarship was established by Mrs. Orina B. Bethea in memory of W. Thad Bethea, Sr., S. Legare Bethea, W. Thad Bethea, Jr, and W. Thad Bethea, III, all graduates of The Citadel. The recipients shall receive this scholarship over the four-year school period at the discretion of the Board of Visitors. Recipients of this scholarship must maintain a high standard in their work.

The Birmingham Area Citadel Club Scholarship was created by contributions and matching gifts donated by the Birmingham Area Citadel Club. The scholarship was established in April 1980. The recipient must be a resident of Birmingham, Jefferson, or surrounding counties.

The Oliver J. Bond Scholarship is supported by the income from a trust fund established by alumni as a memorial to the late Colonel Oliver J. Bond, President of The Citadel, 1908-1931. The present value is \$1,000 a year for four years.

The William P. Bowers Scholarships were established by the late Mr. Bowers, Class of 1918. They pay \$1,000 a year and are awarded to South Carolina cadets, with a preference to residents of Hampton County or adjoining counties.

The Alton H. Bryant Memorial Scholarships have a value of \$1,000 a year for four years. They are in memory of Lieutenant Alton H. Bryant, a graduate of the Class of 1940, who lost his life in the service of his country. Applicants are limited to residents of Orangeburg County, South Carolina.

The Karl Irvin Buse Scholarship was established by a bequest of Karl Irving Buse in 1984. It is to be awarded to a cadet who has financial need and who exhibits scholarship, athletic ability, extracurricular activities, leadership, integrity, indus-

try, respect of his fellow cadets, and evidence of responsibility.

The Burke High School of Charleston Scholarship is a full academic scholarship. The principal of Burke High School will nominate minority students for this scholarship.

The Cadet Insurance Aid plan provides scholarships maintained by the Cadet Insurance Aid Plan from revenue derived from the dividends of life insurance policies voluntarily purchased by members of graduating classes since 1953. This fund supports both athletic and academic scholarships.

The Richard P. Cardwell Scholarships were established by General Eugene F. Cardwell and the late Mrs. Cardwell in memory of their son, Cadet Richard P. Cardwell, a member of the Class of 1957. They are awarded each year to members of the Corps of Cadets and have a value of \$500 each year for one year.

The Carrigg Scholarships were established by a bequest to The Citadel by Stephen L. Deutsch and have a value of \$1,000 a year for four years.

The Frank W. Cayce Memorial Scholarships are four-year scholarships and pay \$1,000 a year. These scholarships were made possible by the late Mrs. Zulale J. Dowling, who bequeathed to The Citadel her entire estate for the purpose of establishing an educational scholarship fund in memory of her grandson, Frank W. Cayce, Class of 1963.

The Central North Carolina Citadel Scholarship was established in 1987 by Wallace Andrew Kennedy, Jr., Class of 1958. A candidate shall be a resident of one of the central North Carolina counties as named in the Deed of Trust and supported by The Citadel Club of the Piedmont Area of North Carolina. If no qualified candidate is available from these counties, then a resident from other counties of North Carolina may be considered. The candidate shall be well-rounded and possess an average or better scholastic record. Awards are limited to \$2,000 per year per recipient and may be renewed yearly if the student is deemed worthy. Financial need is not a criteria, and the scholarship is not available to athletes.

The Citadel Development Foundation Scholarships are awarded from funds provided by the Foundation each year. These scholarships are open to both entering freshmen and currently enrolled students.

The Citadel Scholars Scholarship Program is supported by The Citadel Development Foundation to attract outstanding students. Twelve scholarships are awarded

each year to residents of South Carolina and six to residents of other states. These scholarships pay all expenses, as listed in the catalogue, for four years. Selections are made by the Committee on Scholarships of The Citadel and are based on scholastic and leadership ability and a personal interview.

The Mark W. Clark Scholarship is \$2,000 a year award for four years and is supported jointly from an income made possible by the late General Mark W. Clark, President Emeritus of The Citadel, and from a trust fund established in his honor by the alumni.

The Renie Clark Scholarship is a \$1,500 scholarship. It is awarded each year to a member of the senior class. This scholarship is a memorial to the late Mrs. Mark W. Clark.

The Class of 1919 Scholarship Fund was established by members of the Class of 1919 to support academic excellence and to supplement other scholarship funds.

The Class of 1934 Scholarship was established through the efforts of Mr. Jesse T. Reese, Class of 1934, and fellow classmates in February 1980 as a perpetual fund in the name of the Class of 1934. The recipient should be a resident, or son of a resident of South Carolina, with financial need.

The Class of 1935 Scholarship was established through The Citadel Development Foundation to assist needy freshmen. In selecting a recipient, high school academic records and extracurricular activities will be used. With all things being equal, preference will be given to blood relationship to a member of the Class of 1935.

The Class of 1967 Scholarship was established in 1982 by the Class of 1967. It is restricted in order of priority to a son of a deceased member of the Class of 1967, a son of a member of the Class of 1967, a son of an alumnus, or any qualified applicant.

The Class of 1975 Scholarship was established by the graduating class of that year. It is to be awarded to the rising senior cadet who is in the exact middle of his class. The award pays approximately \$100.

The James K. Coleman Prizes for Excellence in American Constitutional Law were established by Professor Neil H. Alford, Class of 1940, to recognize Citadel students who excel in the area of American Constitutional Law and who are

members of The Citadel Inn of Court.

The John Murray Compton Scholarship was established in 1986 in memory of the late John Murray Compton, Class of 1943, by his widow, Mary Ellen C. Compton, and family. The recipient must possess those attributes of ability, character, temperament, and personality that are in accord with the traditionally high standards of The Citadel, be a resident of Summerville, South Carolina, but need not be a "Straight A" student. Should a student meeting the criteria not be available, a student from the surrounding Summerville area will be considered.

The Lt. Col. Thomas Nugent Courvoisie Scholarship was established in honor of Lt. Col. Courvoisie, Citadel Class of 1938/52, who has served his nation, his state, and his alma mater with distinction. The scholarship is open to all cadets who have successfully completed their sixth regular semester, who have a demonstrated financial need, and who have maintained at least a C average.

The Elizabeth Cosner Courvoisie Memorial Fund was established in memory of Mrs. Courvoisie, wife of Lt. Col. Thomas Nugent Courvoisie, Citadel Class of 1938/52. This scholarship provides a pro rata share of the available income to all cadets in the Regimental Band Company who have completed their junior year and return for their senior year. Cadets who are underclassmen beginning with juniors, then sophomores, and finally freshmen become eligible for this scholarship when all seniors in Band Company have received full scholarships. In keeping with the terms of the scholarship, the funds are transferred annually to each cadet's quarter-master account.

The Crouch-Lee Scholarships have a value of \$500 a year for four years. The James R. Crouch award was founded in 1925 by the late Mr. Crouch, Class of 1899, of Greenville, South Carolina. The William States Lee Scholarship was founded the same year by the late Mr. Lee, Class of 1894, of Charlotte, North Carolina. The deeds provided that recipients should be limited to residents of South Carolina.

The Bessie L. Daniel Scholarship was established by William R. Daniel, Class of 1959, in honor of his mother. This scholarship is restricted to cadets who are United States citizens, from a Protestant Community, and active in campus Christian activities. The cadet should possess attributes of ability, character, temperament, and personality that are in accord with the high standards of The Citadel.

The Henry Deas, Jr., Memorial Scholarship was established by the friends of the late Mr. Henry Deas, Jr., Class of 1938. This award pays \$250 in alternate years.

The William K. and Marion P. Denaro Scholarship Fund was bequeathed to The Citadel in the estate of Mrs. Denaro of the State of New York. Scholarships from this fund are awarded to Citadel Cadets of high standards of conduct, integrity, and leadership.

The Harry S. Dent Americanism Scholarship was established by U.S. Senator Strom Thurmond, advisor to the John P. Gaty Charitable Trust. It is awarded annually to needy and worthy students. Selection is based on a paper on Americanism, the specific topic of which is announced prior to January 1. Applications must be submitted by December 1 and papers must be submitted by March 1 of the academic year preceding the award.

The Louie T. Des Champs Memorial Scholarship was established by Colonel C. A. Des Champs, Class of 1927, in memory of his nephew, Class of 1951. Preference is given to descendants of persons who have served in the armed forces or are residents of California.

The Dillon County Scholarships were established by the late Mr. W. Thomas Dillon and are restricted to cadets from Dillon County, South Carolina.

The Todd L. Dorney Memorial Scholarship was established by his parents in memory of their son, Class of 1980. This scholarship is awarded each year to a rising senior Army cadet who has been exemplary in his military performance. Candidates must be in the top 10% of their Military Science III class with a 3.0 GPA for their junior year. Advanced Camp scores will be evaluated for final selection.

The William S. Doshier Scholarships were established by Dr. William S. Doshier and pay \$1,000 a year for four years. Preference is given to applicants from Hanover and Brunswick Counties, North Carolina.

The James W. Duckett Scholarships are supported by contributions from alumni in honor of Major General James W. Duckett, past President of The Citadel. These scholarships pay \$500 a year for four years.

The David M. Dunning Scholarship was established by Dr. Peter E. Gutierrez as a memorial to Lieutenant Dunning, Class of 1980. It pays \$500 each year, and preference is given to residents of Lake County, Indiana, and then to residents of the State of Indiana.

The duPont Scholarships were established by the late Mrs. Jessie Ball duPont and subsequently increased by a contribution from the Jessie Ball duPont Religious,

Charitable, and Educational Fund.

The Captain Timothy Allen Dusenbury, Class of 1974, Memorial Scholarship was established by his widow and is restricted to a senior with a Marine Corps Option NROTC contract. Preference is given to D Company commanders and/or Summerall Guards from the South.

The Senior Private I. B. Early, Class of 1951, Scholarship was established by William B. Mills, Class of 1951, and his wife Annette T. Mills, in honor of I. B. Early. It is awarded to a cadet believed to possess attributes of ability, character, temperament, and personality that are in accord with the high standards of The Citadel. First consideration will be given to a rising senior private who has financial need and is a North Carolina resident, preferably from the county of Davidson, then in no specific order, the counties of Guilford, Randolph, Montgomery, Alamance, Chatham, Wilkes, Iredell, Stanly, Surry, Rockingham, Moore, Cumberland, Lee, Person, Richmond, Union, Orange, Yadkin, Davie, Alexander and Catawba. If no qualified candidate is available, a resident of North Carolina will be considered.

If no beneficiary qualifies from North Carolina, then a resident from Florida will be considered. Need is not to be the sole or determining factor, however, athletes are excluded.

The Milton L. Eliades Memorial Scholarship fund was established by three classmates of the late Major Eliades, Class of 1964. It is available to upperclass cadets.

The J.O. Estes Scholarships were established by Mr. Estes to be awarded to needy Citadel students from Anderson or Greenville Counties, South Carolina.

The Martha Lee and Columbus Jefferson Ellison Scholarship was established by Dr. Reuben Y. Ellison in 1986 in memory of his parents. In selecting a recipient, financial need and South Carolina residency are the primary requirements.

The Captain Joe Wofford Eubanks Memorial Scholarship was established by the parents of the late Captain Joe Wofford Eubanks, Class of 1969, who lost his life in the service of his country in Vietnam. It is restricted to an out-of-state cadet majoring in history and having financial need.

The Thomas C. Evans, Jr., Memorial Scholarship was established through a pledge by the friends of Thomas C. Evans, Citadel Class of 1958. Scholarships are available to cadets majoring in Civil Engineering.

The Thomas Holland Evans Memorial Scholarship was established by Mr. and Mrs. Thomas Evans in memory of their son, Lieutenant Thomas Holland Evans, Class of 1968, who lost his life while in the service of his country. It is given to an entering freshman, who is in financial need. It has a value of \$1,000 a year for four years.

The Exchange Club of Charleston Service Scholarships are awarded each year to one or two outstanding students from Charleston County.

The Stephen D. Falkenburg, Sr., and Lillian R. Falkenburg—North Carolina Piedmont Area Scholarship is awarded based upon recommendations of the Charlotte, North Carolina, Area Citadel Club. Preference is given to applicants from middle-income families where both parents work or from single parent families. The recipient must be a resident of the North Carolina counties of Cabarrus, Rowan, Stanly, Iredell, or Mecklenburg in that order, or from elsewhere in the North Carolina Piedmont area. In addition to the North Carolina counties as noted, cadets from the New York metropolitan area, with Richmond County preferred, may also be selected.

The Charlie M. Forrest, Jr., Scholarship was established through contributions from Charlie M. Forrest, Jr., a friend of The Citadel.

The Edward M. Foxworth Scholarship was established in 1983 through a generous gift from Ruth G. Foxworth, the wife of Edward M. Foxworth, Class of 1931. The recipient shall be an incoming freshman from South Carolina with character, integrity, a record of concerned citizenship, an outstanding high school record, and financial need. This scholarship may be continued for the sophomore, junior, and senior years if the student maintains a worthy record.

The Lt. John L. Fuller, Jr., Scholarship was established in 1983 in honor of Lt. John L. Fuller, Jr., Class of 1966, who was killed in Vietnam while serving in the United States Marine Corps. This scholarship has been made possible by his classmates and friends. It is open to any cadet who needs financial assistance.

The G.E. College Bowl Scholarship was established in April 1970 by The Citadel team participating in the General Electric College Bowl.

The Greenville-Piedmont Citadel Club Scholarship, with a value of \$500, is based upon need and is given annually to an outstanding young man from Greenville County, South Carolina.

The Anthony D. Griffin Scholarship was established in 1983 in honor of the late Anthony David Griffin, Class of 1974, who was killed while flying for the Navy. This scholarship was made possible through pledges of classmates, family, and friends. The scholarship is restricted to senior cadets taking into consideration financial need and membership in the Summerall Guards or Junior Sword Drill (preferably not the commander of either unit).

The James A. Grimsley, Jr., Scholarship has a value of no less than \$2,000 a year for four years. It is supported by the income from a trust fund established by alumni in honor of Major General James A. Grimsley, Jr., Class of 1942 and former President of The Citadel.

The Peter E. Gutierrez, M. D., Indiana Scholarship was established by Dr. Gutierrez, Class of 1948. It pays \$500 a year for four years to a resident from Indiana, preferably from Lake County.

The Ambrose G. Hampton, Sr., Scholarship in Civil Engineering Fund was established by the Hampton family for this Class of 1921 graduate. Scholarships from this fund are awarded to sophomore Civil Engineering majors, who have a grade point of at least 2.5. Evidence of financial need is also considered.

The Hugh P. Harris Scholarships were established in honor of the late General Hugh P. Harris, past President of The Citadel. They pay \$500 a year for four years.

The Chester E. Hatch, Jr., Memorial Scholarships were established by the widow of Mr. Hatch, Class of 1937. They pay \$500 a year to juniors or seniors majoring in chemistry.

The B. Calhoun Hipp Scholarships have a value of \$500 for one year. They are awarded annually to young men from the Greenville area or Spartanburg County.

The Alvin F. Heinsohn Scholarship was established through the last will and testament of Mr. Alvin F. Heinsohn. Scholarships are available to qualified individuals residing in the County of Charleston with preference being given to sons of past employees of Raybestos Manhattan.

The John M.J. Holliday Scholarship was established in 1983 by John M.J. Holliday, Class of 1936, and past chairman of The Citadel Board of Visitors. The scholarship is restricted to incoming freshmen who are South Carolina residents, and preference is given to students from the Pee-Dee area. Demonstrated scholastic abilities and financial need are considered. This scholarship may be continued for

the sophomore, junior, and senior years if the student maintains a worthy record.

The James L. Hood, III, Memorial Scholarship was established by Mrs. Hood, as a memorial to her husband, Class of 1971. The award has a value of up to \$1,000 a year for four years. It is restricted to applicants from Greenville County, South Carolina.

The Toney B. Jackson Scholarships, established by the late Mr. Toney B. Jackson of the Class of 1915, are given to residents of South Carolina who are members of the sophomore class. These scholarships have a value of up to \$500 a year for one year.

The Jenkinson-Haynsworth Scholarship was established in 1987 by William E. Jenkinson, W.E. Jenkinson, III, Gordon B. Jenkinson, and Haynsworth M. Jenkinson. The recipient should be a resident of Williamsburg County, South Carolina, with financial need. If no candidate is available from Williamsburg county, then a South Carolina resident or a son of a South Carolina native, with financial need, may be considered.

The Dr. Robert Russell Jeter and John Randolph Jeter Scholarship was established in 1987 by Colonel John R. Jeter, Class of 1925. The recipient of the scholarship shall be selected based on the attributes of ability, character, temperament, and personality that are in accord with the high standards of The Citadel. Awards will be equally divided between cadets engaged in a pre-medical academic program and cadets who are participating in the intercollegiate football program.

The Colonel Robert Coleman Jeter Scholarship was established in 1987 by a bequest of Mrs. Mary Fant H. Jeter. Awards will be equally divided between the academic and athletic programs of the college.

The Josias Family Scholarship was established in 1989 by Steven L. Josias, Class of 1970, in honor of his family. This scholarship gives preference to residents of the states of New York and Florida and cadets who maintain a 3.0 or better grade point average.

The Paul J. Kingston Scholarship was established by Mrs. Paul J. Kingston and family to assist a needy junior or senior majoring in Political Science.

The A. John Knebel and Annie Dadin Knebel Scholarship Loan Fund was established in 1983 through a bequest from the will of the late Annie Dadin Knebel. Rising seniors are given preference, but loans may be made to other cadets or

entering students who demonstrate worthiness of such a loan.

The John Patrick Knox Scholarship was established by classmates in memory of John Patrick Knox, Class of 1969, who was killed in 1967. The scholarship is to be given every fourth year or each year that the interest reaches \$300. Recipients shall be freshmen cadets.

The Charles A. Laffitte Memorial Scholarship fund was originally established by the late Colonel Charles A. Laffitte, Class of 1929 and a member of the Board of Visitors, and his family. The awards of \$500 to \$1,000 a year are made to residents of Allendale and Hampton Counties, and need is a major consideration.

The Law Engineering Scholarship was established by Mr. A. J. Glenn, III, P.E., Class of 1953. This \$500 award is specified for a senior majoring in civil engineering and recommended by the head, Department of Civil Engineering.

The O. Harleston and Juliettee M. Lesesne Scholarship was established by Dr. John M. Lesesne, Class of 1941, in honor of his parents.

The Freddie Levine Scholarship Fund was established by funds contributed by friends of Lieutenant Freddie Levine, Class of 1955, who died in the service of his country. One or more scholarships will be awarded annually to cadets in financial need.

The Marion S. Lewis-Kiwanis Scholarship was initiated through contributions from the Charleston Kiwanis Club. The fund is named in honor of Marion S. Lewis, the first head of the Department of Business Administration at The Citadel. Scholarships are available to students in the Business Administration Department.

The Mr. Broadus R. Littlejohn, Jr., Scholarship was established by Broadus R. Littlejohn, Jr., Class of 1949, in honor of his father. The scholarship pays up to \$1,000 a year for four years.

The Albert I. Love Memorial Scholarship has a monetary value of up to \$500 a year for four years. This scholarship is given to a worthy young man from Colleton or Walterboro Counties, South Carolina.

The Jacob Clyde Lybrand Memorial Scholarship was established by Mrs. Mamie G. Harley in memory of her late husband.

The George N. Magrath Scholarship(s) were established by a gift in 1993 from the Peoples Federal Savings and Loan Association, Conway, S.C., to honor this member of the Class of 1943. Preference shall be given to cadets from Horry and Florence counties.

The David S. McAlister Scholarship was established in honor of Colonel David S. McAlister in recognition of his many years of service to the athletic program at The Citadel. It pays an athlete up to \$1,000 a year for four years.

The Gary Milton McCall, Jr., Scholarship was established by Mr. and Mrs. Gary Milton McCall, Sr., as a memorial to their late son, who would have graduated with the Citadel Class of 1987. The scholarship is restricted to students from South Carolina.

The William Darwin McConnell Memorial Scholarship was established by a bequest from Mr. McConnell, Class of 1941. The scholarship is restricted to students from South Carolina.

The Robert F. McCrackan Scholarship was established by bequest of Mr. Walter B. Metts, Class of 1903, in memory of his classmate, Robert F. McCrackan, Class of 1903.

The Hettie McFadden Scholarship was established by the Board of Visitors and other friends of the late Hettie McFadden. Preference shall be given to members of The Citadel Pipe Band who are academically proficient. Financial need is a consideration.

The Arthur Pierson McGee Scholarships were established by bequests from the late Colonel Arthur Pierson McGee, Class of 1908, and Mrs. McGee. They pay up to \$1,500 a year for four years to residents of South Carolina, preferably to cadets from Charleston or Dorchester Counties, with athletic ability and financial need.

The Lieutenant Colonel Stanley A. McGhan, Class of 1962, Memorial Scholarship was established in 1981 by his widow and family. It is restricted to an out-of-state student.

The Colonel Richard Hugh McMaster Memorial Scholarship fund was established by a bequest from the late Major Richard K. McMaster in memory of his father, Class of 1894. This scholarship is restricted to a cadet from South Carolina.

The Megonigal Scholarships were established by a bequest to The Citadel. They

have a monetary value of up to \$500 for one year.

The Lewie G. and Grace M. Merritt Scholarship was established by a bequest of the late General Lewie G. Merritt, Class of 1917, who upon graduation entered the Marine Corps. He was a pioneer in Marine Corps aviation and by 1942 was a brigadier general. He was later appointed the first director of the South Carolina Legislative Council.

The Dr. I. S. H. Metcalf Scholarship was established by The Citadel's Biology Club. Preference shall be given to currently enrolled Biology majors who are rising sophomores, juniors, or seniors, who have a cumulative GPR of 3.0 or greater, and who are American citizens with demonstrated financial need.

The N. S. Meyer-Raeburn Scholarship is a \$200 scholarship awarded annually and is made possible by an annual gift from the Meyer-Raeburn Foundation. No restrictions.

The Colonel Jack R. Millar, Jr., Scholarship was established through contributions from Mrs. Betsy Rogers Millar and R.J.R. Nabisco, Inc. The fund is named in honor of Mrs. Millar's husband, a member of the Class of 1939. Recipients must demonstrate financial need.

The Miscellaneous Scholarship Fund is made of contributions given on a one-time basis and designated for scholarships. Awards are made without restrictions.

The O. Ray Moore Memorial Scholarships are made possible by a bequest to The Citadel Development Foundation by the late O. Ray Moore, Class of 1922. This fund provides three in-state and five out-of-state four year scholarships which pay the total expenses as listed in the catalogue.

The Moore-Richards Scholarship was established in memory of the late Marion Latigue Moore, Sr., and Mrs. Jennie Patterson Richards Moore by members of their family. The scholarship is restricted to residents of Sumter and Kershaw Counties, South Carolina.

The Mark William Motley Memorial Scholarship was established by his father. It pays \$500 to an entering freshman, who has financial need and is from the North Carolina, South Carolina area.

The Mullen Premedical Scholarships, established by Dr. Donald C. Mullen, Class of 1957, have a value of \$500 and are awarded each year to one junior and one

senior who are dedicated to becoming physicians, are in the top 25 percent of their classes, and have need.

The Frank W. Munnerlyn/Citadel Medal of Honor Memorial Scholarship was established by The Citadel Board of Visitors in 1993 from a generous donation made by Frank W. Munnerlyn, Class of 1935. This scholarship is to be awarded to Medal of Honor winners, their sons, grandsons or sons of current active duty or retired members of the U.S. Armed Services who are Citadel graduates.

The Robert A. Murray Scholarship Class of 1967 Fund was established by Charles T. Wallace, Class of 1965. Preference will be given to South Carolina residents who demonstrate financial need.

The G. Morrison Myrick Scholarship was established by friends and family of G. Morrison Myrick, Class of 1969.

The Dennis D. Nicholson, Jr., Scholarship has a value of \$1,500 a year for four years and is supported by the income from a trust fund established by alumni in honor of Colonel Dennis D. Nicholson, Jr., Past Vice President for Development of The Citadel.

The Jack Page Memorial Scholarship is awarded each year to an outstanding junior or senior majoring in business administration. The scholarship pays \$500 and is sponsored by the National Association of Accountants.

The Milton A. Pearlstine Maritime Scholarship was established in 1983 by the South Carolina Ports Authority to honor Milton A. Pearlstine, Class 1919. The Pearlstine Scholarship is restricted to students in business or related fields.

The E.B. Peebles, Jr./Dravo Corporation Scholarship was initiated in 1985 as the result of a pledge from the Dravo Corporation. This fund is named for the donor and in honor of E.B. Peebles, Jr., Class of 1939. Scholarships are available to rising juniors and seniors who have financial need. Preference is given to a student who is associated with the student newspaper.

The Major General Harry K. Pickett Memorial Scholarships are made possible by a bequest of the late General Pickett, Class of 1911. These scholarships have a value of \$1,000 a year. They are awarded to young men of character, who are citizens of the State of South Carolina or sons of United States Marines.

The T.R. Pinson Scholarship was established in 1985 in memory of the late Thomas R. "Red" Pinson, Class of 1931, by his family and friends. A cadet who has financial need and who is a Greenwood county resident will receive first preference. If none qualify, then a South Carolina resident will be considered.

The General Edwin A. Pollock Scholarship was established by the Beaufort Citadel Club and friends of General Pollock to honor this Citadel graduate, Class of 1921. The scholarship has a current value of \$500 a year for an athlete from the State of South Carolina, and Beaufort County residents are given preference.

The President's Honorary Scholarships are awarded each year to outstanding high school graduates and outstanding members of the current junior, sophomore, and freshman classes of The Citadel.

The John Douglas Prevatt Scholarship was established by the Francis G. Horne Foundation for an entering freshman in the upper 10 percent of his graduating class or with a minimum of 1200 on his SAT scores. This award pays all catalogue costs for four years. It is limited to students who are residents of North Carolina or South Carolina and are majoring in biology, chemistry, mathematics, or physics. Students majoring in other disciplines but who clearly intend to pursue a career in medicine will be considered. This scholarship is not open to athletes, but musical ability is an asset.

The Captain Anthony G. Prior Scholarship was established in memory of Captain Prior, Class of 1964, who lost his life in the service of his country in Vietnam. It is awarded to a needy young man with a strong desire for a military career. The value is up to \$500 a year for four years. An average student at The Citadel will be considered, and preference will be given to a student from the eastern United States.

The Kentrice Ray Memorial Scholarship was established through a contribution from Arthur Ray, father of the late Cadet Kentrice Ray, who matriculated with the freshman Citadel Class of 1985 and was killed in October 1986.

The Razor Memorial Scholarship was established by Mr. Melvin D. Verson, Class of 1948, as a memorial to the late Colonel Charles T. Razor. The scholarship is restricted to electrical engineering majors, preferably from Illinois or Texas.

The Colonel T.N. Redd Scholarship(s) were established by James A. Koppenhaver, Class of 1980, to recognize Professor Redd of the Department of English and to provide scholarship support to cadets majoring in English.

Recipients of this scholarship will be nominated by Professor Redd.

The Jesse Timothy Reese Memorial Scholarship was established by Mr. Jesse T. Reese, Jr., Class of 1934, and Mrs. Reese in memory of their father, a Class of 1904 graduate. This scholarship pays up to \$500 a year for four years and is limited to entering freshmen from South Carolina.

The H. Wallace Reid, Jr., Scholarship was established by the parents of H. Wallace Reid, Jr., in his memory. Recipients shall be members of *The Sphinx* staff with preference given to the editor.

The Frances and Tandy Rice Scholarship was established by Tandy C. Rice, Jr., Class of 1961, in honor of his parents. The scholarship pays up to \$1,000 a year to an outstanding premedical junior or senior.

The Tandy C. Rice, Jr., Scholarship was established by Jerry Clower in honor of Tandy Rice, Class of 1961.

The Joseph P. Riley, Sr., Scholarship was established by Mr. and Mrs. Riley to be awarded each year to a needy Citadel Student from the Charleston area.

The Richard H. Rogers Scholarship was established by contributions at the death of Major Richard H. Rogers, Class of 1965. Awards are made without restrictions.

The David Rubenstine Scholarship is made possible by Mrs. Rubenstine in memory of her late husband. This is a one-year award.

The Four "S" Scholarship Fund was founded by Herbert F. Stackhouse, Sr., with his endowed gift to The Citadel. This scholarship is awarded to an upperclass cadet who has maintained a superior academic record. This award is renewable providing a superior academic record is maintained.

The Alan C. Saveall Memorial Scholarship was established through contributions from Mrs. A. Patricia Saveall, classmates, and friends in memory of Alan C. Saveall, Class of 1969. Preference is given to cadets from New England in need of financial aid.

The Major Richard H. Schmidt Memorial Scholarship Fund was established by members of Major Schmidt's family. Major Schmidt, Class of 1952, was killed in action in Vietnam. Need is the deciding factor in naming the recipient.

The Anne Seignious Memorial Scholarship Fund was established by the Class of 1942 in memory of the late Anne Ficken Padgett Seignious, wife of Lieutenant General George M. Seignious II, Class of 1942 and Past President of The Citadel.

The George M. Seignious II Scholarship is supported by the income from a trust fund established by alumni in honor of Lieutenant George M. Seignious II, Class of 1942 and former President of The Citadel.

Lt. Charles J. Schnorf Scholarship was established by the family and classmates in memory of Lt. Charles J. Schnorf, Class of 1981. There are no restrictions on these scholarships.

The Rex K. Skanchy Biology Scholarship Fund was established in 1993 by members of the Biology Department and friends in memory of the late LTC Rex K. Skanchy, laboratory specialist. This scholarship is awarded to juniors or seniors majoring in Biology, who have a GPA of 2.50 or greater and who have distinguished themselves in extracurricular activities at The Citadel.

The Society of American Military Engineers Scholarships are valued at \$250 and are awarded each year to one rising senior and one rising junior who are members of The Citadel Chapter, S.A.M.E.

The South Carolina Electric and Gas Company Minority Scholarship Fund was established with the proceeds from the sale of the Charleston Bus Barn. This fund is to support scholarships for entering minority freshmen, who are in financial need and who are residents of South Carolina.

The Smith-Barnett Scholarship Fund was established with a gift from Jerry F. Friedner, Class of 1960, to honor Dr. Sam Smith and Mrs. M.M. Barnett. This scholarship is restricted to juniors or seniors majoring in civil engineering, who are residents of South Carolina and have financial need.

The Phyllis J. Sparks Scholarship was established with a gift from Ms. Sparks in 1992. Qualifications for this scholarship are unrestricted.

The Dr. Thurman Council Sparks Scholarship was established by a bequest of Mrs. Sparks in memory of her late husband. Recipients shall be worthy and needy South Carolina high school graduates, with preferences given to orphans. Amounts shall be sufficient to pay one year's tuition, room and board, and purchase books and uniforms. Awards are made on a one-year basis, but may be renewed.

The D. Allen Spivey, Bayliss L. Spivey, and Collins A. Spivey Scholarship was established by Collins Alexander Spivey, Sr., Class of 1926, and Collins Alexander Spivey, Jr., Class of 1960. Awards are not to exceed one half (1/2) of the catalogue cost of the recipient, and the recipient must be a South Carolina resident, with preference given to qualified applicants from Horry County. Awards are made on a one-year basis, but may be renewed.

The Rufus J. Sprott Scholarships were established by Mrs. Sprott in honor of her late husband, Rufus J. Sprott, Class of 1923. They pay \$500 a year and are restricted to cadet residents of South Carolina.

The Star of the West Scholarships were awarded for the first time in 1952. They cover all college expenses, as outlined in the catalogue, and are supported by the income from a trust fund of an anonymous donor. These scholarships are available only to students of outstanding academic ability and attainment and are not restricted by considerations of financial need or geographical limitations.

The William K. Stewart, Jr., and Mary Lee B. Stewart Scholarship was established by William K. Stewart, Jr., Class of 1932, and Mrs. Stewart. Consideration for this scholarship is restricted to Band members who can read music; play a brass, wind, or woodwind instrument; have need; and are not South Carolina residents. Preference in order will be given to residents of the city of Wilmington, North Carolina, eastern North Carolina, or the state of North Carolina. If none of the preferences can be met, any Band member who is not a resident of South Carolina may be considered. A freshman may be considered based on the above criteria and the student's band experience in high school.

The Sumter Guards Scholarship was established in 1985 by the Sumter Guards, a corporation organized and existing under an act of the General Assembly of the State of South Carolina. Awarding of this scholarship will be based on financial need. Preference, in order, will be given to members who have one year in the active company known as the Sumter Guards, sons of members, sons of former members, members who have been active less than one year, members of National Guard units of the Charleston area, residents of Charleston who agree to join the active Sumter Guards, National Guardsmen throughout state of South Carolina, or any resident of the Greater Charleston area.

The Summerall Scholarship is supported by the income from a trust fund established by alumni as a memorial to the late General Charles Pelot Summerall, President of The Citadel, 1931-1953. This scholarship is valued at \$3,000 a year for four years.

The Oscar N. Taylor Scholarship was established by a bequest from Colonel Taylor, Class of 1919, and Mrs. Taylor. The scholarship has a monetary value of \$1,500 a year for four years.

The Edgar A. Terrell Scholarships are valued at from \$500 for one year to \$1,000 a year for four years. They were made possible by a donation from the late Edgar A. Terrell, Class of 1915, and are limited first to candidates from Mecklenburg County, North Carolina, and then to candidates from the State of North Carolina.

The Teal Terrell Scholarship was established by a donation from Teal Terrell. Recipients shall be cadets from South Carolina with financial need.

The Fern Lee Thomason Scholarship was established by Mrs. Jewell Marshall Bee Thompson to honor her husband a member of the Class of 1958. Preference shall be given to residents of Charleston, Berkeley or Dorchester counties. Financial need shall be considered.

The Hugh Smith Thompson Scholarships were established by William G. Thompson in memory of his grandfather, Hugh Smith Thompson, Class of 1856. Awards are made to non-athletes who have demonstrated financial need.

The Captain William Thomson Scholarships were established by a bequest from Captain Thomson. The scholarship is valued from \$500 for one year to \$1,000 a year for four years. Preference is given to students of Scottish descent.

The Dr. Thaddeus A. Timmons Scholarship was established by the family of Dr. Thaddeus A. Timmons, Class of 1928. The recipient should be a premedical major.

The Janet S. Twitty Scholarships were established with a gift from the AVTEX Commercial Properties, Inc. and William C. Twitty, Class of 1969, husband of the late Janet S. Twitty. The recipients of this scholarship will be Business Administration majors who demonstrate financial need.

The James Ripley Westmoreland Scholarship has a value of \$500 a year for four years. This scholarship is to aid worthy South Carolina young men who are in need of financial assistance to obtain a college education. This scholarship is in memory of Colonel James Ripley Westmoreland, Class of 1900, who served as chairman and a member of the Board of Visitors.

The W. Steve Weston, Jr., Class of 1938, Leadership Foundation Scholarships were established with a generous gift from this graduate. They are full

academic scholarships for cadets who demonstrate academic excellence and leadership qualities. Attributes not considered are religious beliefs or financial standing.

The Louis F. Weyand Scholarship was established by bequest of Louis F. Weyand.

The Edward Zimmerman White, Jr., Scholarship was established by a gift from daughters of Edward Zimmerman White. Recipients shall be senior business majors who are South Carolina residents. Preference will be shown to residents of Spartanburg County.

The George Walker White Scholarship was established by Mrs. Robert N. Garrison and Mrs. J. Boyd Strawn, daughters of George Walker White, Class of 1904, who was the son of Major James Benjamin White, past superintendent of The Citadel. The scholarship is awarded annually to the rising senior civil engineering student who best exemplifies the qualities of a potentially outstanding civil engineer.

The Raymond F. Whitby, III, Scholarship was established in 1979 as a memorial to Captain R.F. Whitby, III, Class of 1970.

The Richard A. Whitney Scholarship was established by Mr. and Mrs. Whitney. It is restricted to needy cadets from Beaufort County, South Carolina.

The Lt. Colonel Clark Williams Memorial Scholarship was established with a contribution from Dr. J. Herbert Moore.

The John P. Wilson Scholarship was established through contributions from family and friends in memory of John P. Wilson, who was the father-in-law of The Citadel Board of Visitors Chairman, Colonel William R. Risher, Class of 1947.

The Michael J. Worthy Scholarship was established by Mr. and Mrs. Fred Worthy in memory of their son. This scholarship is open to young men who are of American Indian descent.

The Judge C. C. Wyche Scholarships were established through a gift from the late Judge C. C. Wyche, Class of 1906, and are restricted to a male student from South Carolina.

The General Ronald Zeltman Scholarship was established through a contribution from the president of the Schweber Electronic Corporation, J. Michael Worfolk, in honor of General Ronald Zeltman, Class of 1958.

Private and Outside Scholarships

Numerous corporations, employers, professional organizations, foundations, local civic organizations, churches, and high schools make scholarships available to Citadel cadets.

Outside scholarship assistance has been a rapidly growing sector in financial aid at The Citadel. It requires initiative on the student's part. It is suggested that the student consult with his high school counselor, employers, or civic leaders or officials and use the local library for information on educational foundations which offer scholarships.

One of the largest and most widely known scholarship programs is the National Merit Scholarship, however there are numerous other organizations which offer thousands of scholarships each year. The Citadel has a number of holders of Palmetto Fellows, Sirrine, and C.G. Fuller Foundation Scholarships which are available to residents of South Carolina.

ROTC SCHOLARSHIPS

ROTC scholarships represent significant financial assistance at The Citadel.

Each service, whether Army, Navy or Air Force, has its own criteria and "time tables" for application and acceptance. SAT or ACT scores must generally be received by a respective service branch by January of the senior year of high school.

Once at The Citadel, a cadet may apply for three- or two-year scholarships. These scholarships pay all tuition, fees, books and uniform costs, however they do not cover room and board. Nearly 10% of the Corps of Cadets hold ROTC scholarships.

Those interested in ROTC scholarships should contact the head of each ROTC unit on The Citadel campus for further information and assistance.

ROTC SCHOLARSHIP ENHANCEMENT PROGRAM

All incoming freshmen on four-year ROTC scholarships will be eligible for the Citadel's ROTC Enhancement Program. This new program entitles out-of-state four-year scholarship recipients to receive a grant of \$2,500, not to exceed college catalogue costs. In-state four-year recipients are awarded full

coverage thru the enhancement. This award is intended to be a four year grant unless the student loses or decides he no longer wishes to hold his ROTC scholarship or does not maintain at least a 3.0 GPR.

Incoming freshmen, both in-state and out-of-state, who are designated for three-year ROTC scholarships will be entitled to waiver of barracks or room fees their freshman year. When they receive their ROTC scholarship during their sophomore year they will be awarded the \$2,500, as long as they maintain their ROTC eligibility.

OTHER ASSISTANCE

Vocational Rehabilitation Scholarships: This program provides for education and training if the student has a physical or mental disability which is a substantial handicap to employment and there exists reasonable expectation that vocational rehabilitation services may lead to gainful employment. Additional information is available through the Department of Vocational Rehabilitation in the student's home state.

Sirrine Scholarship: All Greenville County residents are urged to apply for this scholarship given to individuals who want to continue their education. Winners are selected on the basis of financial need and academic ability. Applications are available in the high school counselor's office.

Methodist Student Loan Fund: Loans of up to \$700 per year at an interest rate of 3 percent per annum are provided by the Methodist Student Loan Fund. Repayment must start within six months after discontinuing full-time attendance. For applications, contact the Office of Loans and Scholarships, Board of Higher Education and Ministry, The United Methodist Church, P.O. Box 871, Nashville, TN 37202, or Financial Aid Office, The Citadel.

Lutheran Brotherhood Loan: Loans of up to \$2,500 are available for Lutheran undergraduate students. Repayment begins six months after the date of graduation or withdrawal from school. For applications, contact Student Loan Coordinator, Lutheran Brotherhood, 701 Second Ave. South, Minneapolis, MN 55402.

Knights of Columbus: Loans of up to \$1,500 are available for members and dependents of the Knights of Columbus. Repayment begins six months after graduation or withdrawal from school. For applications, contact Knights of Columbus, Student Loan Committee, P.O. Drawer 1670, New Haven, CT 06507.

College Budget Plans: Academic Management Service (A.M.S.) is one of a number of special plans by many of the larger banks which will pay college fees when due and arrange for a parent or sponsor to repay on a prearranged monthly budget schedule extending over the year. Contact The Citadel's Treasurer's Office for information.

Veterans Services: Veterans services are administered under the umbrella of Student Financial Aid at The Citadel. Veterans services are intended to meet the needs of students receiving benefits under Chapter 35 (Dependents), Chapter 32 (VEAP), the old G.I. Bill (Chapter 34), the new Montgomery G.I. Bill (Chapter 30), Chapter 31 (Vocational Rehabilitation), and Chapter 106 which deals with reservists from all branches of the service. Veterans who feel they have an entitlement should check with their local VA Office, the Regional Office in Columbia (1-800-827-1000), or the VA Coordinator at The Citadel.

An applicant should contact the VA Coordinator in the Financial Aid Office at The Citadel well in advance of the anticipated admission date so that the necessary documents may be obtained in order to certify attendance with the VA. All veterans and dependents receiving VA Educational Benefits are required to come to the Financial Aid Office each semester and complete a class schedule card. Any changes in the veteran's course of study should be cleared with the VA Coordinator in the Financial Aid Office to insure continuation of benefits. Any reduction in course load should be reported immediately to avoid overpayment. Transfer students are reminded that the office must have copies of all transcript evaluations made by the Records Office before certification can be made to the Veterans Administration for payment.

In determining eligibility for VA educational funds, the satisfactory progress chart on page 2 of this publication will apply to all veterans and dependents receiving VA benefits for their education at The Citadel.

GRADUATE INFORMATION

Assistantships: Teaching and Research Assistantships are available on a limited basis through the departments. For information contact the appropriate department chairman.

Loans: Students who are enrolled at least half-time (3 credit hours) are eligible for student loans.

The Federal Stafford Loan Program: The Stafford Loan program (formerly GSL) provides students with long term low interest loans. Both subsidized and unsubsidized Stafford Loans are available. The federal government "subsi-

dizes" a loan by paying the interest while the student is in school. For an unsubsidized loan the government does not provide the subsidy; therefore, interest on the loan accrues while the student is enrolled. Another difference between these two loans is that the family contribution is taken into consideration when determining a student's need for a subsidized loan. Eligibility for an unsubsidized loan does not consider the family contribution.

A graduate student may borrow up to \$8,500 annually with an aggregate of \$65,000 including amounts borrowed as an undergraduate student.

The interest rate on a Stafford Loan for students borrowing for the first time after October 1, 1992 is variable, annually, and is tied to the 91-day Treasury bill, the maximum interest rate is 8.25%.

GradEXCEL Education Loans: GradEXCEL offers graduate and professional students a signature loan based on projected future earnings, rather than on current income and credit worthiness. Annual loan amount range from \$2,000 to \$7,500 when a student borrows on his/her own, or up to \$20,000 with a credit worthy cosigner. Borrowers can choose between two interest rate options, and have three repayment options: (1) deferred principal and interest payments while enrolled; (2) deferred principal payments while enrolled; (3) fixed monthly payments of principal and interest. Repayment periods range from 4 to 20 years, depending on amount borrowed. For more information or a GradEXCEL application, please call Nellie Mae at 1-800-634-9308 or (617) 849-3447, or write to: Nellie Mae, GradExcel Department, 50 Braintree Hill Park, Suite 300, Braintree, MA 02184.

Department of Intercollegiate Athletics

The mission of the Department of Intercollegiate Athletics at The Citadel is to develop, maintain, and continue to improve a well-rounded program of athletics geared to the aims and objectives of The Citadel, the Southern Conference, and the National Collegiate Athletic Association.

The Citadel is a member of the NCAA with Division I-AA classification in football, and Division I Classification in all other sports. In addition, the college is a member of the Southern Conference, which is comprised of Appalachian State University, The Citadel, Davidson College, East Tennessee State University, Furman University, Georgia Southern University, Marshall University, University of Tennessee Chattanooga, Virginia Military Institute, and Western Carolina University.

The Sports Program

The Citadel athletic program has been an aggressive force in the Southern Conference and on the national scene. The Bulldog football team advanced to the NCAA Division I-AA playoffs three of the last five years, and won the 1992 Southern Conference Championship. The Bulldogs entered the 1992 Division I-AA playoffs as the No. 1 ranked team in the division and advanced to the quarterfinal round of the playoffs. The Citadel football team also has earned the reputation as a "giant-killer" in college football, defeating the likes of Army and Navy twice, Arkansas and in-state rival South Carolina over the last six seasons. The team has become a fixture in the national polls and has churned out numerous all-conference and all-America players.

The college's baseball team made headlines across America in the spring of 1990 with the nation's longest winning streak during the regular season (26 games), winning its 7th Southern Conference title, defeating the Miami Hurricanes twice to win the Atlantic Regional title, making the College World Series field in Omaha, Nebraska, and finishing the season ranked No. 6 nationally among NCAA Division I schools. Overall, the Bulldogs have won ten Southern Conference titles, including the 1994 championship.

The Citadel's tennis and soccer teams have continually made improvements in recent years and have made strong challenges for Southern Conference titles. The track program is highly competitive, while golf, wrestling, and rifle have each continued a winning tradition. The Bulldog basketball team defeated the University of South Carolina in 1989 in Columbia and annually plays one of the most demanding and attractive schedules in the country.

The Citadel's intercollegiate teams are led by qualified, caring coaches who are concerned with the overall development of the cadet-student-athlete. Some of the best facilities in the country can be found at The Citadel. The sports medicine program at The Citadel is one of the most respected in America, and

the graduation rate of Citadel athletes ranks among the best in the country.

The Department of Intercollegiate Athletics sponsors 11 varsity teams, including football, basketball, cross-country, soccer, rifle, wrestling, indoor and outdoor track, baseball, golf, and tennis. Each year, more than 300 cadets participate as players, managers, or student trainers.

Facilities

Athletic facilities at The Citadel are among the finest in the conference. Home football games are played at 22,500 seat Johnson Hagood Stadium, which is slated for renovations in the near future. Seignious Hall, perhaps the finest facility of its kind on the NCAA Division I-AA level, houses the football locker room, the sports medicine facilities equipment room, outstanding weight room, coaches' offices, and meeting areas. The newly renovated McAlister Field House seats 6,000 for basketball games and is a showcase facility for the Bulldog basketball program. The recently completed Earle Tennis Center, located adjacent to the Donald C. Bunch Tennis Courts, provides excellent dressing facilities and meeting areas for the tennis team.

Outdoor facilities for practice and competition include six all-weather composition and four Laykold tennis courts, an upgraded quarter-mile all-weather track, and four practice fields for soccer and football. The soccer team plays its home games on The Citadel parade ground and Johnson Hagood Stadium.

Baseball games are presently being played at venerable College Park, a 6,000-seat facility adjacent to The Citadel campus. Beginning with the 1995 season, the Bulldog baseball team will move into a new 7,000-seat baseball stadium, which will be located along the banks of the Ashley River.

Vandiver Hall, which opened its doors in the fall of 1991, provides the Bulldog soccer, baseball, wrestling, rifle, golf and track teams with a modern well-equipped facility. Dressing rooms, ranges, practice areas, and locker rooms are just a few of the many offerings of Vandiver Hall.



Photo credit: Associated Press
Cadet Anthony Jenkins, First Team All-American, sliding into home plate during the College World Series, Omaha, Nebraska, 1990, for the game winning, 12th inning run, against California State at Fullerton.

Honors and Awards

The Palmetto Award

The Palmetto Award is made by the Board of Visitors in recognition of exceptional performance which reflects great credit on The Citadel or the State of South Carolina. It is to be made to a member of the Corps of Cadets, alumni, faculty, or staff of The Citadel, or any other person whose service to the college or state is deemed worthy of recognition. Members of the Board of Visitors, the President of The Citadel, or the Association of Citadel Men may make nominations for candidates for this award, but recipients must be unanimously approved by the Board of Visitors. This award takes precedence over all other honors awarded by The Citadel with the exception of honorary degrees.

The Algernon Sydney Sullivan Award

The Algernon Sydney Sullivan Award is a bronze medallion presented by the college, through the benefaction of the New York Southern Society, to students or others in recognition of high thought and noble behavior. Established by the Society in 1925, the award has been made to The Citadel since 1933.

Commencement Honors

The first two commencement honors reflect the reputation of the recipient while he was a cadet at The Citadel and are thus restricted to those graduates who have earned (and are using to satisfy graduation requirements) a minimum of 90 semester hours at The Citadel.

The John O. Willson Ring is given annually, at the bequest of Dr. John O. Willson, to the cadet member of the senior class voted by his classmates as the manliest, purest, and most courteous member of the class.

The Scholarship Medal is presented annually by the Board of Visitors, and the recipient is designated as the First Honor Graduate of the Corps of Cadets. This honor is awarded to the cadet graduate whose grade-point ratio, reflecting all undergraduate hours attempted at The Citadel is highest among the graduating class.

To be eligible to graduate with honors or for departmental honors, the student must have earned at The Citadel at least half of the semester hours required in his major course of study.

A degree *summa cum laude* is awarded to those students in the graduating

class who have achieved a grade-point ratio of 3.90-4.00 on all work taken at The Citadel.

A degree *magna cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of 3.70-3.89 on all work taken at The Citadel.

A degree *cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of 3.50-3.69 on all work taken at The Citadel.

Departmental Honors are awarded on recommendation of department heads to those students of the graduating class who have established a grade-point ratio of 3.50 or better in at least 36 hours of work completed at The Citadel in their major department. This must include all departmental work required in the junior and senior years.

Academic Awards

The Dean's List is a recognition given for the work in a semester to those cadets registered for 12 or more semester hours whose grade-point ratio is 3.20 or higher, with no grade below C. The medal is worn on the uniform during the following semester.

Gold Stars are awarded to those cadets on the Dean's List who have made a grade-point ratio of 3.70 or higher for the work of a semester. Stars are worn on the uniform during the following semester.

Academic Honors

Phi Kappa Phi is the only national honor society whose membership is open to scholars of all academic disciplines. Members of The Citadel Chapter of the Honor Society of Phi Kappa Phi are selected from among those undergraduate students who rank scholastically in the upper 4 percent of the junior class or in the upper 8 percent of the senior class. In order to qualify, graduate students must have attained a 3.5 GPR during their undergraduate career and a 4.0 in graduate classes at The Citadel. Members of the faculty whose professional records have rendered them worthy of membership may be extended invitations to join.

The American Legion ROTC Scholastic Excellence Awards are presented to Army, Navy, and Air Force ROTC firstclassmen and secondclassmen who have demonstrated scholastic excellence.

The Francis Marion Award is presented by the Rebecca Motte Chapter, D.A.R.,

to a cadet of the graduating class for outstanding achievement in American history.

The Granville T. Prior Award consists of a key and letter presented annually by The Citadel History Department to the student whose senior research project is selected by a joint faculty committee as the best in the Departments of English, History, and Political Science.

The William E. Mikell Award, a cash award made possible by the late William E. Mikell, is awarded to the graduating English major having the highest average in English (including English Honors) since the beginning of his sophomore year.

The Wall Street Journal Student Achievement Award is donated by the Wall Street Journal and awarded to the senior chosen by the Business Administration Faculty as the most outstanding student in Business Administration.

The Charles P. Summerall Cup is donated by the European Citadel Association and awarded annually for one year to the company of cadets with the best academic achievement. Companies are rated on the average grade-point ratio (GPR) for each semester plus a factor to reflect the increase or decrease in GPR from the first to second semester.

The Post-Courier Awards are given by the *Post-Courier* to the best writers on *The Brigadier* staff as chosen by a committee of faculty and staff members.

The Francis Marion Award is presented by the Rebecca Motte Chapter, D.A.R., to a cadet of the graduating class for outstanding achievement in American history as expressed by having the highest GPA in all American History courses taken.

The Peter Gaillard Memorial Award is given annually by Colonel and Mrs. St. Pierre Gaillard in memory of Peter Gaillard, Class of 1948, to a graduating firstclassman, majoring in Electrical Engineering, on a basis of scholastic attainment, leadership, and participation in extracurricular activities.

The Charles T. Razor Memorial Award is given annually in memory of Colonel Charles T. Razor to a graduating cadet selected by the head of the Department of Electrical Engineering on the basis of scholastic achievement, ability, and willingness to help others.

The Colonel Louis Shepherd LeTellier Award is given annually to a member of the graduating class attaining the highest academic average in Civil Engineer-

ing.

The George Walker White Award is given annually by Mrs. James Boyd Strawn and Mrs. Robert Neal Garrison in memory of their father, Class of 1904. This award goes to a member of the graduating class for outstanding achievement in Civil Engineering.

The Colonel Christopher Schultz Gadsden Memorial Award, in memory of Colonel Gadsden, Class of 1852, is given annually to the "best all-round Civil Engineering graduate" as selected by the Civil Engineering faculty.

The Reuben Burton Pitts, III, Memorial Award is given annually in memory of Reuben Burton Pitts, III, Class of 1963, to the second-classman who is selected by his classmates as showing the greatest concern for the well-being of other cadets.

The Carlisle Norwood Hastie Award is given annually to the graduating firstclassman who has been selected by his classmates as having shown the most tact, consideration, and courtesy to his fellow classmates.

The Henry J. Taylor Cup is presented annually to the member of *The Brigadier* staff who has demonstrated the greatest journalistic improvement during the current school year.

The Colonel James K. Coleman Award is in honor of Colonel Coleman, Class of 1919, who established the Department of Political Science at The Citadel. It is given annually by Pi Sigma Alpha, National Political Science Honor Society, to the firstclassman in Political Science with the highest scholastic record for the four years.

The H. L. Gary Award, consisting of a cash award and a certificate of recognition, is given annually to a graduating senior for outstanding achievement in European history.

The English Faculty Award, consisting of a cash award and a scroll, is given by the members of the Department of English to an English major who, during an academic year, has submitted an essay, short story, or poem of exceptional merit.

The George E. Reves Award is given in memory of Colonel George E. Reves. The award, consisting of a suitably inscribed desk plaque for the recipient and

the listing of the recipient's name on the master award plaque which is kept in the Department of Mathematics and Computer Science, is given to the graduating senior selected by the faculty of the Department of Mathematics and Computer Science for outstanding achievements in mathematics or computer science.

The Colonel Charles E. Hirshey Award is given to the graduating senior cadet in Education who in the judgment of the faculty has made the greatest contribution to his department, has achieved an outstanding record academically, and has the greatest potential for excellence in teaching.

The Thomas Francis McGarey Award is a cash award given annually by Mrs. Miriam M. Favorite in memory of her father, Thomas Francis McGarey, Class of 1914, to the outstanding graduating firstclassman in the field of natural science.

The Keith E. Hamilton Award is presented by the Physical Education faculty to the senior Physical Education major who has demonstrated outstanding academic achievement and potential for growth.

The William E. Mikell Award, a cash award made possible by the late William E. Mikell, is awarded to the graduating English major having the highest average in English (including English Honors) since the beginning of his sophomore year.

The Morris, Duffey, and Boone Award, an embossed copy of *Black's Law Dictionary*, is presented annually at the Lent Reading of The Citadel Inn of Court for excellence in pre-law preparation and service to the Inn.

The Medal of the South Carolina Commandery of the Military Order of U.S. Foreign Wars is presented to a member of the South Carolina Corps of Cadets who is majoring in History, who at the end of the Fall term of his junior year has the highest average GPA in all history courses taken, possesses a minimum of a 3.0 GPA average in all courses taken, and who evinces a high moral character and a high order of loyalty to his company, The Citadel, and the United States.

The Zelma Guy Palestrant Leadership Award is given annually to a rising senior in the Corps of Cadets who is an outstanding student and an active user of the Daniel Library and who has demonstrated in his interactions with his fellow cadets, faculty, and staff the characteristics of integrity, perseverance, vision, fairness, and forthrightness. The recipient must have a strong sense of

duty and an ability to listen and take good points from differing views to forge a consensus. The recipient is selected by Library Faculty and Staff.

The Francis Eugene Zemp Award is given annually to the pre-medical student having the highest academic average. The award consists of a plaque given to the recipient and the inscription of his name on the master award plaque which is kept in Byrd Hall.

The MacArthur Cadet Award is presented annually by the General Douglas MacArthur Foundation to the senior class cadet for the most soldierly performance considering academics, athletics, and leadership.

The William Porcher DuBose Award is given annually to the cadet first honor graduate by the United Daughters of the Confederacy.

Military Awards

The Order of Cincinnati Award is presented annually to a cadet officer who has exemplified in the highest degree the qualities of soldier and citizen.

The Congressional Medal of Honor Society Award is awarded annually to the graduating first class cadet who is considered the most outstanding in the performance of cadet and military activities and who will be commissioned into the armed forces subsequent to graduation. The recipient is selected by a committee comprised of the commandant of cadets and the professors of Aerospace Studies, Military Science, and Naval Science.

Veterans of Foreign Wars Award is presented annually to first and second class cadets who have achieved an outstanding academic record.

American Veterans of World War II, Korea and Vietnam Award is presented annually to ROTC cadets for diligence in the discharge of duty and willingness to serve God and Country.

The Wade Hampton Saber is awarded annually by the South Carolina Division, Daughters of The Confederacy, to the member of the first class who is most outstanding in leadership and who makes the greatest contribution to The Citadel while a cadet.

Army ROTC Distinguished Military Student Program—Army ROTC students whose proficiency in military training and whose qualities of leadership and

attention to duty have merited the approbation of the Professor of Military Science are designated Distinguished Military Students and are eligible to apply for appointment as second lieutenants in the Regular Army when they have registered for their last academic year.

The Association of U.S. Army Medal is donated by the Association of the United States Army and awarded annually to the outstanding Army ROTC secondclassman.

The Widder Award is presented annually by Mr. and Mrs. John D. Widder, in memory of their son, Capt. David Widder, USA, Class of 1959, to the outstanding Distinguished Military Student in Army ROTC.

The Washington Light Infantry Marksmanship Trophy and Medals consist of a trophy awarded annually for one year to the organization whose team makes the highest score in small bore rifle marksmanship and medals awarded annually to the cadets making the highest individual scores. All are presented by the Washington Light Infantry.

Distinguished Naval Students—During the fall semester each year, the Professor of Naval Science designates as Distinguished Naval Students (DNS) those senior cadets in the Naval ROTC program who have displayed outstanding qualities in academics, leadership, adaptability to military training, and sound moral character.

The United States Naval Institute Awards consists of a membership certificate in the Naval Institute for a one-year period awarded to an outstanding NROTC regular cadet in the senior class and to an outstanding NROTC contract cadet in the senior class.

The Marine Corps Association Award consists of a certificate and membership in the Association for a one-year period awarded to the outstanding junior or senior Marine-option cadet who has displayed the highest qualities of perseverance, integrity, motivation, and devotion to duty.

The Navy League Sword is awarded annually by the Navy League to the most outstanding cadet to be commissioned in the U.S. Navy or U.S. Marine Corps.

Distinguished Air Force Students (DAFS)—During the fall semester each year, the Professor of Aerospace Studies designates as DAFS, those AFROTC cadets of the first class who have displayed outstanding qualities of leadership,

adaptability to military training, and academic achievement.

The Air Force Association Award is presented each year to the outstanding first class AFROTC cadet possessing outstanding leadership characteristics. The winner of this award is also eligible to receive the Aerospace Education Foundation's *W. Randolph Lovelace Memorial Award*.

The Air Force Historical Foundation Award is presented annually to an AFROTC firstclassman in recognition of outstanding leadership, citizenship, academic, and military achievement.

Air Force ROTC Awards—Citadel AFROTC cadets are very competitive for other awards to include the *American Fighter Aces Award*; the *USAA Scholarship Award*; the *Virgil I. Grissom Memorial Scholarship Award*; and the *AFROTC Valor Award*.

The American Legion Army, Navy and Air Force General Military Excellence Award is presented annually to a cadet in each of the first and second classes who has demonstrated outstanding qualities of military leadership, discipline, character, and citizenship.

The National Defense Transportation Association Award is presented annually to an outstanding ROTC firstclassman majoring in Business Administration, Civil Engineering, or Political Science.

The Society of American Military Engineering Award is awarded annually to a member of the first or second class who is majoring in engineering and has demonstrated outstanding academic achievements.

The South Carolina Reserve Officers Association Awards are donated annually by the Reserve Officers Association and awarded to the outstanding Army, Navy, and Air Force ROTC first, second, and third class cadets for demonstrating courtesy, personal attributes, positive attitude, and promotion potential.

The Daughters of the American Colonists Award is given annually to the firstclassman with the best disciplinary record during his four years at The Citadel.

The Armed Forces Communications and Electronics Association Awards are awarded annually to the outstanding Army, Navy, and Air Force ROTC first and second class cadets majoring in Engineering, Mathematics, Chemistry, and Physics.

Sons of the American Revolution Awards are awarded annually to outstanding

Army, Navy, and Air Force fourthclassmen on the basis of leadership ability, soldierly bearing, and excellence in ROTC studies and activities.

The Daughters of the American Revolution ROTC Award is presented annually to an outstanding graduating ROTC cadet selected for academic excellence, leadership ability, adherence to military discipline, dependability and good character, and a fundamental and patriotic understanding of the importance of ROTC training.

The Major William M. Hutson Award is presented annually by Colonel and Mrs. J.C. Hutson in memory of their son, Major William M. Hutson, USAF, Class of 1939, to a rising senior selected for outstanding leadership ability, academic standing, and devotion to duty.

The Commandant's Cup, donated by the late Colonel W.C. Miller, is awarded annually to the best-drilled company.

The W.C. White Medal is presented annually by Mrs. W.C. White to the company commander of the best-drilled company.

The Kelly Cup, in memory of Captain Benjamin E. Kelly, Jr., USA, Class of 1961, is awarded annually to the squad winning the squad drill.

The Star of the West Medal, originally presented to The Citadel by Dr. B.H. Teague, is awarded annually to the best-drilled cadet.

The Major General Lewie G. Merritt Memorial Award is presented annually to an outstanding Marine option senior based on scholastic attainment, leadership, physical fitness, integrity, motivation, and devotion. Additionally, he must be designated a Distinguished Naval Graduate by the Professor of Naval Science. The award consists of a certificate and life membership in the Marine Corps Association.

Other Awards

Other prestigious awards for which Citadel cadets in Army, Navy, and Air Force ROTC can compete include: *The Legion of Valor Bronze Cross for Achievement*; *The Military Order of World Wars Medal*; *The National Sojourners Award*; *The American Defense Preparedness Association Award*; and *The Retired Officers Association ROTC Medal*. The list of awards on the last several pages is not complete, but space precludes a full listing. Many other awards are given in recognition of military and scholastic excellence, as well as meritorious participation in cadet activities and athletics.

The Citadel Honors Program

The Citadel Honors Program provides exceptional learning experiences for a limited number of outstanding students whose past records indicate that they can take full advantage of the personal student-teacher relationship which the tutorial-based honors curricula will provide. Honors courses will augment the current curriculum of the college by offering for those selected students an experimental and alternate means of education grounded in the methods of intellectual inquiry.

The Honors Program is an autonomous program of the college, with an Honors Director serving as the head of the program. The Director is responsible for recruiting and admitting Honors students; reviewing courses which are proposed to meet Honors requirements and selecting those which will be included in Program offerings; critiquing Honors courses and the performance of the faculty offering them; establishing and enforcing entrance and exit requirements; serving as the Honors Advisor for all Honors students; establishing and monitoring the operating budget for the Honors Program; and coordinating the Honors Program requirements with those of the academic majors.

The Honors Council is comprised of at least four current or former Honors Faculty and two Honors students. The heavy involvement of the Honors students in this Council is intended to ensure that addressing the needs of these exceptional students will continue to be the primary goal of The Citadel Honors Program. The Honors Council will advise and assist the Honors Director in the governance of the program.

The Honors Students' Association is comprised of academically proficient participants or past participants in the Honors Program. Its purpose is to promote closer association among participants in the Honors Program, to provide a student forum for discussion of the Honors Program and its operation, and to assist the Honors Council.

Admission and Retention of Students

Students must apply separately for admission to the Honors Program, in addition to applying for admission to the college. The Honors Director will evaluate all applications and offer acceptances based upon the student's standardized test scores, class rank, extracurricular activities, and intellectual and academic promise. Personal interviews, at least by telephone, are required as part of the application process. Applications should be to Dr. Jack W. Rhodes, Honors Program, The Citadel, 171 Moultrie Street, Charleston, SC 29409. Phone: 803-953-3708. The deadline for applying is January 15.

Students with outstanding grades after their first semester at The Citadel may apply for admission to the Honors Program at that time. Also, deserving students may be admitted to individual Honors courses on a space-available basis; in such cases, the Honors courses will meet Core Curriculum or General Elective requirements as appropriate.

To remain in good standing, students in the Honors Program must maintain at least a 3.0 in their Honors courses and a 2.7 overall. The Honors Council will review the records of all Honors students who fall below this average and take appropriate action, which might be either separation from the Honors Program or the establishment of a probationary period.

Honors Students Advisor

One faculty member in each academic department serves as academic advisor to all the Honors Program students majoring in that discipline. In addition, the Honors Director helps advise students concerning their schedules, courses of study, and other matters as needed.

Honors Program Curriculum

The Honors Program is designed to provide an exceptionally broad background of cultural knowledge and learning skills which the student can then apply to his chosen area of academic specialization. Most of the Honors Program curriculum will come in courses designed to be taken in lieu of Core Curriculum requirements, and most will, therefore, be taken in the freshman and sophomore years. The other Honors courses will take the place of General Electives. The emphasis in Honors courses will be, not primarily acceleration, but enrichment. The courses will go into extra depth, examining more closely the significance and implications of the material studied, or presenting that material in a broader cultural context. In general, it is expected that Honors courses will employ discussion in order to establish habits of rigorous inquiry and intellectual independence.

The plan behind the curriculum is to create an environment of learning in which the students' intellectual habits can be formed. The patterns and processes of intellectual and scholarly inquiry will be taught, not merely the results of other people's having conducted that inquiry. Each Honors course will have a tutorial foundation; individual students will meet with their instructors frequently (usually, once every week) to discuss and develop ongoing writing, research, and laboratory projects.

Curricular Requirements

Students majoring in one of the sciences or engineering will be required to complete the following Honors courses: Honors English I, II, III, and IV; Hon-

ors History I and II; Honors Mathematics I and II; Honors Social Science Project; and one Honors Seminar or Research Project.

Students majoring in one of the liberal arts will be required to complete the following Honors courses: Honors English I, II, III, and IV; Honors History I and II; Honors Social Science Project; and two Honors Seminars or Research Projects (or one of each).

Freshman Honors Courses

HONR 001 *Honors Freshman Seminar* No Credit Hours

This course will introduce freshman Honors Program students to the various areas of academic study available at The Citadel, their subjects, their methods, and their rewards. The format for the course will be lecture/discussion.

HONR 101 and 102 *Honors English I & II:
The Aesthetic Context* Three Credit Hours
Each Semester

This sequence will introduce students to the artistic achievements, chiefly literary, of Western and possibly some non-Western cultures, within the context of the major intellectual and ideological currents of those cultures. Techniques of prose composition will be taught as the students engage these issues in writing.

Students enrolled in the Honors Program may meet the college's Core Curriculum requirements in freshman English by successfully completing HONR 101 and 102 ("Honors English: The Aesthetic Context") instead of ENGL 101 and 102 ("Composition and Literature"). If a student successfully completes the first semester of Honors Program, he will be allowed to enroll in ENGL 102 and may fulfill his Core Curriculum requirement in freshman English by successfully completing that course.

HONR 103 and 104 *Honors History I & II:
The Social, Political,
and Historical Context* Three Credit Hours
Each Semester

This sequence will introduce students to the social, political, and historical events involved in the development of Western and possibly some non-Western cultures, emphasizing the interplay between the way people of the past saw themselves and the universe and the way they shaped their environment.

Students enrolled in the Honors Program may meet the college's Core Curriculum requirement in history by successfully completing HONR 103 and 104 ("Honors History: The Social, Political, and Historical Context") in lieu of HIST 103 and 104 ("History of Western Civilization"). If a student successfully completes the first semester of Honors History and then ceases participation in the Honors Program, the student may complete his Core Curriculum requirement in

history by completing HIST 104 (the second semester of "History of Western Civilization").

HONR 107 and 108	<i>Honors Mathematics I and II: The Analytic Context</i>	Four Credit Hours Each Semester
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This sequence will teach the Calculus within the context of its development from the civilization which produced it and its impact on civilization since. Topics covered will closely match those in MATH 131 and MATH 132. Students enrolled in the Honors Program may meet the college's Core Curriculum requirement in mathematics by successfully completing HONR 107 and 108 ("Honors Mathematics: The Analytic Context") in lieu of MATH 131/32 ("Analytic Geometry and Calculus I and II"), MATH 105/106 ("College Mathematics I and II"), MATH 106/107 ("College Mathematics II and III"), or MATH 106/160 ("College Mathematics II" and "Statistical Methods"). Should a student successfully complete the first semester of Honors Mathematics and then cease to participate in the Honors Program, he can fulfill his Core Curriculum requirement in mathematics by completing MATH 105, MATH 107, MATH 132, or MATH 160.

Sophomore Honors Courses

HONR 201 and 202	<i>Honors English III & IV: Studies in British and American Literature</i>	Three Credit Hours Each Semester
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This sequence will teach one or more themes, genres, modes, schools, periods, or authors in British and American literature. The techniques of prose composition will be reinforced and developed.

Students enrolled in the Honors Program may meet the college's Core Curriculum requirement in sophomore English by successfully completing HONR 201 and 202 in lieu of ENGL 201 and 202. If a student successfully completes the first semester of sophomore Honors English and then ceases participation in the Honors Program, he will be allowed to enroll in ENGL 202 and may fulfill his sophomore Core Curriculum requirement in English by successfully completing that course. Students majoring in English will be required to complete ENGL 213 and ENGL 214. In that case, HONR 201 will satisfy the departmental requirement to take either ENGL 211 or 212, and HONR 202 will count as an English elective.

HONR 203	<i>Honors Social Science Project</i>	Three Credit Hours
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This will be an interdisciplinary, integrative group project in the social sciences, drawing upon the context provided by the freshman Honors sequence.

Students may meet the college's Core Curriculum Social Science requirement by completing this one semester course.

Upper-Level Honors Courses

HONR 300 *Honors Seminar: Special Topics* Three Credit Hours

Often interdisciplinary, this seminar will investigate a field of study not addressed—at least, not in much detail—within the framework of the normal curriculum. It will be suitable for students in all majors. Topics will vary.

HONR 400/401 *Honors Directed Research* Three Credit Hours
 Project I & II Each Semester

Juniors or seniors conduct research under the direction of faculty members. The research need not be original with the student, but may be part of a project which the faculty member is currently conducting or has conducted in the past. An extra-departmental second reader or evaluator will be required for all projects..

Honors Program Recognition

Students who complete all Honors Program requirements will be recognized as Honors Program graduates in their college commencement ceremony. They will receive an Honors Program certificate, plus an Honors Seal on their Citadel diploma. A notation will be added to their official college transcript to indicate they have completed the requirements of the Honors Program.

Students admitted to the Honors Program after their first semester at The Citadel will be required to complete at least 18 semester hours of Honors courses. They will be recognized as Honors Program Graduates in their respective commencement ceremony, and a notation will be added to their official college transcript to indicate that they have fulfilled the requirements of the Honors Program. Unlike Honors students who have completed the full program, they will not receive an Honors Seal on their diplomas.

THE UNDERGRADUATE CURRICULUM

The curriculum is the major instrument by which an institution whose purpose is to provide a liberal education passes along to the rising generation the intellectual heritage of mankind. This large treasury includes not only valuable knowledge acquired over the centuries but also the modes of thought by which that knowledge has been acquired.

The curriculum provides an orderly sequence of academic achievements through courses which exhibit a solid body of subject matter and employ scholarly methods which are typical of their discipline, and whose subject matter and methods are useful for understanding other academic matters beyond the confines of their own discipline. Such courses have been divided traditionally into two groups: the core curriculum where students are initiated into the methods and subjects of several academic disciplines that represent the full scope of academic study; the academic major curriculum, where students pursue intensive study in a single academic field.

Through this objective and intellectually rigorous method of education, The Citadel prepares not only professional scholars but also leaders of society in all walks of life.

THE CORE CURRICULUM

The core curriculum is the body of courses which constitutes the center or nucleus of a Citadel education. The disciplines represented in the core are selected according to two standards: the rational, inasmuch as the courses encompass each of the basic methodologies employed in academic pursuits; and the historical, inasmuch as the centuries have confirmed the durability and the serviceability of the disciplines involved.

While the courses of the core are diverse, they nevertheless constitute a unit of the college curriculum, one that coalesces at a higher level of abstraction than other portions of the curriculum, because the core courses examine the foundations of particular, central disciplines in the perspective of the whole academic enterprise, the search for truth. These courses, therefore, have a decidedly philosophical cast, and for this reason they rightly emphasize their discipline's ultimate bases, the validity of its method, its essential elements, and its distinctive character.

In the core curriculum, a student's earlier education reaches a completeness and a fullness of perspective for which he was not previously ready; and his later

studies, while they will go deeper and further into a particular field, will necessarily require his attention to be more narrowly focused. The core curriculum also captures the academic quality of higher education better than most arrays of courses since through core courses the student examines the forms which knowledge takes, whereas later studies will concentrate on the content of knowledge in a presupposed form. Furthermore, the level of intellectual achievement in the core courses is for most students higher than they will ever reach again, except in the confines of the single discipline in which they major.

Since the core curriculum is fundamental to all further studies, the entire faculty shares authority over it, although some departments have special responsibility for the parts which they teach. The core is placed early in a student's career because it inculcates those skills essential for further study and for the life of an educated man, such permanent and profound dispositions of the spirit as the habits of objectivity, consistency, preciseness, orderly deliberation, prudent judgement, and respect for the life of the mind. These intellectual powers are developed by a student seriously abandoning himself to mature study in the academic disciplines which constitute our core.

The Standing Curriculum Committee of the college is charged to monitor the overall appropriateness and effectiveness of the core curriculum courses, to study and determine the benefit accruing to students from these courses, to examine whether the purposes for which the core was designed are being realized, and to recommend changes and modifications within particular courses or with the overall Core Curriculum.

Areas of Study

Within The Citadel's core curriculum, study in five areas—English, History, Mathematics, Science, and Social Science—is required of all students regardless of their academic majors. For all students other than those pursuing professional preparations in the areas of Civil and Electrical Engineering, Education, and the Teaching Track of Physical Education, study of a Foreign Language is also required. Each course, or sequence of courses, which addresses a core curriculum requirement incorporates, where appropriate, all the following skills: written communications, critical thinking, logical reasoning, and resource and reference usage.

English The use of language is at once the most essential, the most sophisticated, and the most practical of all human arts and is a skill indispensable to further endeavors in any field. English studies foster a student's facility in the use of language and ideas mainly by requiring him to assess great works of literature. This obliges him to become adept in handling the important values of civilization and also to become sensitive to the subtle nuances that great writers have found in them. Such studies also refine his aesthetic sense and thereby

teach him, among other things, to use language with appropriate grace and force. Literary studies contribute to the development of a student's character by requiring him to evaluate human conduct and judge what men have made of their lives. English studies are central to a college education because they are a forum where the rival and complementary claims of philosophy, practicality, science, ethics, politics, and religion come alive in concrete situations.

The primary benefits in studying English come when a student engages in dialogues with the works of great authors, listening to their words receptively and responding to them critically. Prerequisite to this encounter are skills in writing and literary analysis.

Each student at The Citadel is required to complete four semesters of English. The first semester, ENGL 101, is basic composition, and the Department of English is responsible for determining which entering students are sufficiently prepared to by-pass this course. The transcripts of those students who are permitted to by-pass this course will reflect ENGL 101 as if it had been completed successfully on a Pass/Fail basis at The Citadel.

For student who must participate in ENGL 101, successful completion will be based on acquired writing skills, and the course must be completed with the grade of "C" or higher.

It is expected that the second course in English, ENGL 102, will be by-passed only by exceptionally well prepared students. Should this circumstance occur, the transcript will reflect ENGL 102 as was described for ENGL 101 above. This course continues to develop the writing skills of the student, introduces the student to various literary forms, and prepares the student to undertake a two-semester literature sequence.

A two-semester literature sequence in Major British Writers, ENGL 201/202, completes the core curriculum requirement in English. Students majoring in English address this literature requirement through ENGL 213/214.

Mathematics Much of mathematics deals with the study of number, form, arrangement, and associated relationships, using rigorously defined literal, numerical, and operational symbols. The mathematical world, then, is one of extraordinary purity and completeness, and the study of it provides a precision of thinking and a clarity of knowledge that could hardly be imagined without this unique discipline.

Mathematics is a product of human thought which does not depend on empirical observations, yet it is admirably adapted to concrete interpretations in the physical and social sciences. Its purely theoretical foundation confirms the objectivity of scientific findings, and its transferability to discrete sciences provides a bond of unity among them. Mathematics, then, comprises both abstraction and the application of the results obtained by abstraction to specific prob-

lems. Of these aspects, the basic one is abstraction. Because mathematics is abstract and general, it is applicable to problems which arise in widely different areas.

Core studies in mathematics are designed to enhance students' facility in mathematical operations, advance them as far into mathematics as their talent and preparation will permit, increase their understanding of mathematical applications in other fields, and reveal the nature of mathematics as a discipline in its own right.

Each student is required to complete a two-semester sequence in mathematics. All students pursuing the B.S. degree in biology, chemistry, computer science, engineering, mathematics, or physics must complete a two-semester calculus sequence, either MATH 106/107 or MATH 131/132. All other students must complete a two-course sequence which includes an introduction to calculus. Depending on the major selected, this sequence is MATH 105/106 or MATH 160/106.

History History teaches students information about the past which helps to explain the human condition, and, more important, it teaches students to think about human affairs as historians do.

The information in the core history courses concerns matters of major significance in the human story. It is sufficiently remote to be viewed dispassionately and comprehensively, and it is of a sufficient quantity to display major forces at work over a long period.

For a student to begin thinking as an historian does, he is required to encounter a variety of evidence about past events, to weigh it by several standards, and to discern in it causes, effects, theories, facts, inconsistencies, and the like; in addition, he is required to attempt, according to the standards of the discipline, a narrative assessment of what the evidence reveals about the past.

What a student gains from such a study of history, besides the accumulation of information and the rigorous exercise of his mental faculties, is the ability to view human activity in its temporal and other dimensions and also from a large and objectively framed perspective, so that he has a balanced regard for both concrete deeds of men and for the larger patterns which these deeds constitute.

Each student is required to complete two semesters of History of Western Civilization, HIST 103/104.

Science Studies in a science require a student to make observations about the physical world, to reason about his observations according to scientific standards, and to begin to understand the system of principles that control nature.

The method of science is to make and record observations about material phenomena, to arrange the accumulated data in a systematic way, to develop

inductively hypotheses which explain the data, and finally to design and perform experiments which test these hypotheses and their domain. Only when these hypotheses are independently corroborated and exhibit predictive capability can they be allowed to stand as scientific theory. When a student practices the scientific methods, he learns to account for every aspect of the phenomena, to construct a hypothesis which is based upon scientific observations which also has general application, to follow hunches and intuitions but to hold them in suspense until he can contrive a rational explanation, and then to test his explanation by an experiment which publicly applies it to a demanding case. From this exercise, the student develops a healthy understanding of nature and a firmly established appreciation for the marvels of the physical world.

Each student must complete (4) semesters of science. This requirement must be met by two sequences of two semesters each in Biology, Chemistry, or Physics. No more than one sequence is to be completed in any single science. Students pursuing a degree in the Department of Health and Physical Education meet the requirements for the study of biology through the three semester sequence, BIOL 101/111, BIOL 303/305, and BIOL 304/306.

Social Sciences The ultimate goal of the social sciences is the understanding of those aspects of human experience that are social, political, economic, and psychological. By applying a variety of methods including hypothesis testing, quantification, and statistical analysis, the social sciences seek to construct empirically based theories of human behavior. Because the social sciences differ from the natural sciences in subject matter and from the humanities in method, they occupy a distinctive position among the academic disciplines. The social sciences are to human phenomena what the natural sciences are to natural phenomena.

The social sciences are important because of the significance of social theories in understanding human conduct and because of the increasing reliance on the methods, techniques, concepts, and vocabularies of the social sciences.

Each student is required to complete a one-semester course in the Social Sciences, and this course must be selected from among the following, each of which requires a year of freshman level mathematics as a prerequisite; PSCI 201 (American Politics and Government), PSYC 209 (Psychology of Individual Behavior), HONR 203 (Honors Social Science Project), or SOCI 210 (Social Sciences and Social Life).

Foreign Languages The world has become a "global village," and we can no longer afford to live in linguistic isolation, expecting to influence those who do not know our language while remaining ignorant of theirs. It is perhaps more vital now than at any moment in the history of our nation for us to realize the

absolute necessity of becoming proficient in foreign languages and knowledgeable about the cultures of people living beyond our borders.

Not only will our diplomats and military personnel be spending ever greater amounts of time abroad, but also more and more business people, engineers, scientists, medical personnel, lawyers, teachers, and other professionals will find themselves working and travelling in other countries. A good command of a foreign language can enable these Americans to be far more effective and successful in their work, in addition to being more comfortable in their surrounds.

Accordingly, it has come to be recognized that study of a foreign language and culture is an essential element of a liberal-arts education. The benefits of studying a foreign language are many and varied; the practical ability to communicate proficiently with non-English speakers; the enrichment of one's understanding of his own culture through investigation of another's culture; an increased exposure to ideas and concepts expressed by important world authors in their literature; and, as a consequence of foreign language study, the enhancement of one's appreciation and knowledge of his native tongue, its structures and vocabulary.

In short, knowledge of foreign languages is not only indispensable for the education of the "whole man," but it is also a fundamental requirement for maintaining satisfactory commercial, diplomatic, and cultural relations in today's ever-shrinking world.

Each student, other than those pursuing degrees in Teacher Preparation in Education, Physical Education or degrees in Civil or Electrical Engineering, will be required to study the same foreign language (French, German, or Spanish) through at least the 202 level at The Citadel. The Department of Modern Languages conducts a screening program each fall to determine the level of language proficiency of each entering student.

THE MAJOR CURRICULUM

Building on the knowledge and skills acquired through study of core curriculum courses, the curriculum of each major consists of carefully selected required courses complimented by a variety of electives. These electives are in one of the following categories:

Elective refers to a course which is required for graduation but does not meet a core or major requirement.

Approved Elective refers to a course which is required to meet major requirements but must be selected from a list of approved courses provided by the individual department.

Non-Departmental Elective refers to a course which is required for graduation, does not meet core or major requirements, and must be taken outside the major department. Students are encouraged to study areas outside the major to ensure as broad an education as is practical.

In addition to providing the student with a sound foundation in the discipline, course work offered in each major course of study stresses written and oral communications and ensures that each student is able to use the computer as a tool within the discipline.

Courses of Study

The following pages contain a detailed schedule of the curriculum required for each degree according to the major subject selected. The clock hours and the credit value of each course are noted. The individual courses are described under the appropriate departmental heading in the pages following the schedules.

The geography and geology courses are offered in the Department of Chemistry; the fine arts in the Department of Education; philosophy in the Department of English; computer science in the Department of Mathematics and Computer Science; and sociology and anthropology in the Department of Political Science.

The courses normally scheduled by the fourth class are numbered from 101 upward, by the third class from 201 upward, by the second class from 301 upward, and by the first class from 400 upward.

Major work is offered in the following areas: Biology, Business Administration, Chemistry, Civil Engineering, Computer Science, Education, Electrical Engineering, English, French, German, Health and Physical Education, History, Mathematics, Physics, Political Science, Psychology, and Spanish. A thorough premedical preparation is also available through the B.A. Chemistry or the Biology major.

BIOLOGY MAJOR

First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
A Modern Language			3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
General Biology I	BIOL	101	3	(3,0)
General Biology Laboratory I	BIOL	111	1	(0,2)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry Laboratory I	CHEM	161	1	(0,2)
A Modern Language			3	(3,0)
Physics for Biology and Premedicine	PHYS	205	3	(3,0)
Physics for Biology and Premedicine Laboratory	PHYS	255	1	(0,2)
Cell Biology	BIOL	205	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(0,2)

JUNIOR YEAR

Genetics	BIOL	308	4	(3,0)
Organic Chemistry I	CHEM	207	3	(3,0)
Organic Chemistry Laboratory I	CHEM	217	1	(0,3)
History of Western Civilization	HIST	103	3	(3,0)
**Approved Elective	BIOL		3 (4)	
Elective			3 (4)	
+1st Year Advanced ROTC				

SENIOR YEAR

Senior Seminar	BIOL	411	1	(1,0)*
**Approved Elective	BIOL		3 (4)	
**Approved Elective	BIOL		3 (4)	
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**Approved Electives must include at least one course from each of the following four areas. Physiology: BIOL 403, BIOL 404, BIOL 425; Field Biology: BIOL 314, BIOL 321, BIOL 408, BIOL 409, BIOL 410, BIOL 426, BIOL 490; Developmental Biology: BIOL 208, BIOL 401, BIOL 424; and at least two courses from Descriptive Biology: BIOL 203, BIOL 204, BIOL 301, BIOL 302, BIOL 307, BIOL 309, BIOL 310, BIOL 315, BIOL 316, BIOL 322, BIOL 402, BIOL 405, BIOL 419, BIOL 423.

It is recommended that biology majors take at least one advanced botany and one advanced zoology course.

***Prerequisite is approval by department head and supervising professor

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

BIOLOGY MAJOR

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
A Modern Language			3	(3,0)
Applied Calculus II	MATH	107	3	(3,0)
General Biology II	BIOL	102	3	(3,0)
General Biology Laboratory II	BIOL	112	1	(0,2)
Microcomputer Applications	CSCI	115	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry Laboratory II	CHEM	162	1	(0,2)
A Modern Language			3	(3,0)
Physics for Biology and Premedicine	PHYS	206	3	(3,0)
Physics for Biology and Premedicine Laboratory	PHYS	256	1	(0,2)
Statistical Methods	STAT	160	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Organic Chemistry II	CHEM	208	3	(3,0)
Organic Chemistry Laboratory II	CHEM	218	1	(0,3)
History of Western Civilization	HIST	104	3	(3,0)
**Approved Elective	BIOL		3 (4)	
Ecology	BIOL	406	4	(2,4)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Public Speaking	ENGL	205	3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
***Senior Research Project or-	BIOL	420		
**Approved Elective	BIOL		3 (4)	
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 128 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

BUSINESS ADMINISTRATION MAJOR**First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
Biology, Chemistry, or Physics			4	(3,2)
Microcomputer Applications	CSCI	110	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
A Modern Language			3	(3,0)
**Principles of Macroeconomics	BADM	201	3	(3,0)
**Applied Calculus I	MATH	106	3	(3,0)
Accounting Principles and Practice I	BADM	211	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

JUNIOR YEAR

Biology, Chemistry or Physics			4	(3,2)
**Legal Environment of Business	BADM	305	3	(3,0)
**Non-Departmental Elective			3	(3,0)
Principles of Management	BADM	325	3	(3,0)
Business Elective	BADM		3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

**Production Management	BADM	410	3	(3,0)
**Business Information Systems	BADM	411	3	(3,0)
Business Elective	BADM		3	(3,0)
Business Elective	BADM		3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**May be taken in either semester.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

BUSINESS ADMINISTRATION MAJOR

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Finite Mathematics	MATH	105	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
A Modern Language			3	(3,0)
**Principles of Microeconomics	BADM	202	3	(3,0)
**Business Statistics I	BADM	205	3	(3,0)
Accounting Principles and Practice II	BADM	212	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

JUNIOR YEAR

Biology, Chemistry or Physics			4	(3,2)
**Business Finance	BADM	321	3	(3,0)
**Marketing Principles	BADM	309	3	(3,0)
Organization Theory and Behavior	BADM	328	3	(3,0)
Business Elective	BADM		3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

**Strategic Management	BADM	422	3	(3,0)
**Social Science Core Course			3	(3,0)
Business Elective	BADM		3	(3,0)
Business Elective	BADM		3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

BUSINESS ADMINISTRATION MAJOR
Accounting Concentration
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
Biology, Chemistry, or Physics			4	(3,2)
Microcomputer Applications	CSCI	110	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
A Modern Language			3	(3,0)
**Applied Calculus I	MATH	106	3	(3,0)
**Principles of Macroeconomics	BADM	201	3	(3,0)
Accounting Principles and Practice I	BADM	211	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

JUNIOR YEAR

Biology, Chemistry or Physics			4	(3,2)
**Legal Environment of Business	BADM	305	3	(3,0)
**Management Course	BADM	325		
	or	328	3	(3,0)
Intermediate Accounting I	BADM	300	3	(3,0)
Managerial Accounting	BADM	302	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

**Production Management	BADM	410	3	(3,0)
**Business Information Systems	BADM	411	3	(3,0)
Auditing	BADM	416	3	(3,0)
Non-Departmental Elective			3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**May be taken in either semester.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

BUSINESS ADMINISTRATION MAJOR
Accounting Concentration
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Finite Mathematics	MATH	105	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
A Modern Language			3	(3,0)
**Business Statistics I	BADM	205	3	(3,0)
**Principles of Microeconomics	BADM	202	3	(3,0)
Accounting Principles and Practice II	BADM	212	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

JUNIOR YEAR

Biology, Chemistry or Physics			4	(3,2)
**Business Finance	BADM	321	3	(3,0)
**Marketing Principles	BADM	309	3	(3,0)
Intermediate Accounting II	BADM	301	3	(3,0)
Cost Accounting	BADM	401	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

**Strategic Management	BADM	422	3	(3,0)
**Social Science Core Course			3	(3,0)
Advanced Accounting Problems	BADM	402	3	(3,0)
Taxation	BADM	312	3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

B.S. CHEMISTRY MAJOR**First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry Laboratory I	CHEM	161	1	(0,3)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Organic Chemistry I	CHEM	207	3	(3,0)
Organic Chemistry Laboratory I	CHEM	217	1	(0,3)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
A Modern Language			3	(3,0)
Introduction To Computer Applications or ..	CSCI	115		
Microcomputer Applications	CSCI	110	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Quantitative Analysis	CHEM	300	4	(3,3)
Physical Chemistry I	CHEM	305	3	(3,0)
Physical Chemistry Laboratory I	CHEM	315	1	(0,3)
Chemical Literature	CHEM	308	1	(1,0)
Physics for Engineers and Physical Scientists	PHYS	211	3	(3,0)
Physics for Engineers and Physical Scientists Laboratory	PHYS	261	1	(0,2)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Inorganic Chemistry I	CHEM	401	3	(3,0)
Biochemistry or	CHEM	409		
Special Topics in Organic Chemistry	CHEM	403	3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Senior Research	CHEM	419	2	
+2nd Year Advanced ROTC				
.....				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.S. CHEMISTRY MAJOR

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry Laboratory II	CHEM	162	1	(0,3)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED			(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Physics for Engineers and Physical Scientists	PHYS	210	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	PHYS	260	1	(0,2)
Differential Equations	MATH	232	3	(3,0)
Organic Chemistry II	CHEM	208	3	(3,0)
Organic Chemistry Laboratory II	CHEM	218	1	(0,3)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Physics for Engineers and Physical Scientists	PHYS	212	3	(3,0)
Physics for Engineers and Physical Scientists Laboratory	PHYS	262	1	(0,2)
Instrumental Methods	CHEM	302	4	(2,4)
Physical Chemistry II	CHEM	306	3	(3,0)
Physical Chemistry Laboratory II	CHEM	316	1	(0,3)
History of Western Civilization	HIST	104	3	(3,0)
Social Science Core Course			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Inorganic Chemistry II	CHEM	402	3	(3,0)
Preparation and Characterization of Inorganic and Organic Compounds	CHEM	412	2	(0,6)
Spectra and Identification of Organic Compounds	CHEM	408	3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Senior Research Project	CHEM	420	2	
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

B.A. CHEMISTRY MAJOR**First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry Laboratory I	CHEM	161	1	(0,3)
Applied Calculus I	MATH	106	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Organic Chemistry I	CHEM	207	3	(3,0)
Organic Chemistry Laboratory I	CHEM	217	1	(0,3)
Physics for Biology and Premedicine	PHYS	205	3	(3,0)
Physics for Biology and Premedicine Laboratory	PHYS	255	1	(0,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Quantitative Analysis	CHEM	300	4	(3,3)
History of Western Civilization	HIST	103	3	(3,0)
Elective			3	(3,0)
Physical Chemistry I	CHEM	305	3	(3,0)
Physical Chemistry Laboratory I	CHEM	315	1	(0,3)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Basic Inorganic Chemistry	CHEM	401	3	(3,0)
Chemistry Senior Thesis	CHEM	425	2	(2,0)
Approved Elective	CHEM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

ROTC hours (credit, lectures, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours

B.A. CHEMISTRY MAJOR
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)*
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry Laboratory II	CHEM	162	1	(0,3)
Applied Calculus II	MATH	107	3	(3,0)
Introduction to Computer Applications or ...	CSCI	115	3	(3,0)
Microcomputer Applications	CSCI	110		
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Organic Chemistry II	CHEM	208	3	(3,0)
Organic Chemistry Laboratory II	CHEM	218	1	(0,3)
Physics for Biology and Premedicine	PHYS	206	3	(3,0)
Physics for Biology and Premedicine Lab. ..	PHYS	256	1	(0,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Physical Chemistry II	CHEM	306	3	(3,0)
Physical Chemistry Laboratory II	CHEM	316	1	(0,3)
History of Western Civilization	HIST	104	3	(3,0)
Instrumental Methods	CHEM	302	4	(2,4)
Chemical Literature	CHEM	308	1	(1,0)
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Chemistry Senior Thesis	CHEM	426	2	(2,0)
Approved Elective	CHEM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

CIVIL ENGINEERING MAJOR**First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry Laboratory I	CHEM	161	1	(0,2)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
History of Western Civilization	HIST	103	3	(3,0)
Engineering Drawing	CIVL	101	2	(0,4)
+1st Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Physics for Engineers & Physical Scientists	PHYS	210	3	(3,0)
Physics for Engineers & Physical Scientists Lab .	PHYS	260	1	(0,2)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Surveying I	CIVL	205	3	(3,0)
Surveying I Laboratory	CIVL	235	1	(0,2)
Computer Application for Civil Engineering ...	CIVL	209	1	(1,1)
Social Science Core Course			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

JUNIOR YEAR

Dynamics	CIVL	301	3	(3,0)
Mechanics of Materials	CIVL	303	4	(3,2)
Transportation Engineering	CIVL	305	3	(3,0)
Materials Laboratory	CIVL	307	1	(0,3)
Geology for Engineers	GEOL	303	3	(2,2)
+1st Year Advanced ROTC				

SENIOR YEAR

Concrete Laboratory	CIVL	401	1	(0,2)
Reinforced Concrete Design	CIVL	403	4	(4,0)
Structural Analysis II	CIVL	405	3	(2,2)
Environmental Engineering	CIVL	408	3	(3,0)
Fluid Mechanics Laboratory	CIVL	418	1	(0,2)
Introduction to Geotechnical Engineering	CIVL	409	3	(3,0)
***Non-Departmental Elective			3	(3,0)
Senior Research Project	CIVL	420	0	
+2nd Year Advanced ROTC				

+ROTC hours (credits, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

*Represents semester credit, lecture, and laboratory hours, in that order.

**Select CIVL 422, CIVL 423, CIVL 424, or CIVL 425.

***Two semester sequence in humanities or social sciences; at least one course at advanced level.

CIVIL ENGINEERING MAJOR **Second Semester**

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry Laboratory II	CHEM	162	1	(0,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
History of Western Civilization	HIST	104	3	(3,0)
Introduction to Civil Engineering	CIVL	102	2	(0,4)
+1st Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Physics for Engineers & Physical Scientists	PHYS	212	3	(3,0)
Physical for Engineers and				
Physical Scientists Laboratory	PHYS	262	1	(0,2)
Applied Mathematics I	MATH	234	4	(4,0)
Statics	CIVL	202	3	(2,2)
Photogrammetry	CIVL	204	1	(0,2)
Surveying II	CIVL	206	3	(3,0)
Surveying II Laboratory	CIVL	236	1	(0,2)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

JUNIOR YEAR

Highway Engineering	CIVL	306	2	(2,0)
Highway Engineering Lab	CIVL	326	1	(0,2)
Structural Analysis I	CIVL	308	3	(3,0)
Fluid Mechanics	CIVL	315	3	(3,0)
Engineering Administration	CIVL	314	2	(2,0)
Elements of Electrical Engineering	ELEC	308	3	(3,0)
Technical Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Steel Design	CIVL	406	3	(2,2)
***Non-Departmental Elective			3	(3,0)
Environmental Engineering Laboratory	CIVL	419	1	(0,2)
Geotechnical Engineering II	CIVL	410	3	(3,0)
Geotechnical Laboratory	CIVL	402	1	(0,2)
**Approved Elective	CIVL		3	
Senior Research Project	CIVL	420	2	
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 135 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

COMPUTER SCIENCE MAJOR**First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
A Modern Language			3	(3,0)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
A Modern Language			3	(3,0)
Introduction to Discrete Structures	MATH	206	3	(3,0)
Physics for Engineers and Physical Scientists	PHYS	210	3	(3,0)
Physics for Engineers and Physical Scientists Laboratory	PHYS	260	1	(0,2)
Introduction to Computer Science II	CSCI	202	4	(3,2)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Database Design and File Structure	CSCI	320	3	(3,0)
++Chemistry or Biology			4	(3,0)
Introduction to Probability and Statistics	STAT	361	3	(3,0)
Computer Organization & Programming	CSCI	262	3	(3,0)
Social Science Core Course			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Digital Systems Fundamentals	ELEC	305	3	(3,0)
Operating Systems and Computer	CSCI	405	3	(3,0)
+++Approved Elective	CSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				
.....				

*Represents semester credit, lecture, and laboratory hours, in that order.

**Any mathematics course numbered at the 200 level or above.

+ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Science must be CHEM 101 (111)/CHEM 102 (112) or BIOL 101 (111)/BIOL 102 (112).

+++Any computer science course numbered at 300 or 400 level.

COMPUTER SCIENCE MAJOR

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
A Modern Language			3	(3,0)
Introduction to Computer Science I	CSCI	201	4	(3,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
History of Western Civilization	HIST	104	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Physics for Engineers and Physical Scientists	PHYS	211	3	(3,0)
Physics for Engineers and Physical Scientists Laboratory	PHYS	261	1	(0,2)
A Modern Language			3	(3,0)
Data Structures	CSCI	315	3	(3,0)
Linear Algebra	MATH	240	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

**Mathematics Elective	MATH		3	(3,0)
Chemistry or Biology			4	(3,0)
+++Approved Elective	CSCI		3	(3,0)
Programming Languages	CSCI	355	3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Digital Systems Design	ELEC	428	3	(3,0)
+++Approved Elective	CSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

EDUCATION MAJOR**(Biology)****First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
Finite Mathematics	MATH	105	3	(3,0)
General Biology I	BIOL	101	3	(3,0)
General Biology Laboratory I	BIOL	111	1	(0,2)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Introduction to Chemistry I	CHEM	103	3	(3,0)
Introduction to Chemistry Lab I	CHEM	113	1	(0,2)
General Anthropology	ANTH	201	3	(3,0)
Educational Psychology	EDUC	202	3	(3,0)
Introduction to Earth Science I	GEOL	201	3	(3,0)
Introduction to Earth Science Lab I	GEOL	211	1	(0,2)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

General Psychology	PSYC	201	3	(3,0)
Adolescent Development	EDUC	308	3	(3,0)
Human Physiology	BIOL	304	3	(3,0)
Evolution	BIOL	208	3	(3,0)
Physics for Biology and Premedicine	PHYS	205	3	(3,0)
Physics for Biology and Premedicine Lab ...	PHYS	255	1	(0,2)
Music Appreciation	FNAR	205	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Methods and Materials of Secondary				
School Teaching	EDUC	401	3	(3,0)
Social and Cultural History of the				
Non-Western World	HIST	417	3	(3,0)
Microbiology	BIOL	310	4	(3,3)
Ecology	BIOL	406	4	(2,4)
Biology Elective	BIOL		3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduate requirements may not exceed 16 semester hours.

EDUCATION MAJOR

(Biology)

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
General Biology II	BIOL	102	3	(3,0)
General Biology Laboratory II	BIOL	112	1	(0,2)
History of Western Civilization	HIST	104	3	(3,0)
Education in Modern Society	EDUC	101	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Introduction to Chemistry II	CHEM	104	3	(3,0)
Introduction to Chemistry Lab II	CHEM	114	1	(0,2)
Social Science Core Course			3	(3,0)
Art Appreciation	FNAR	206	3	(3,0)
Teaching Reading in the Secondary School	EDUC	208	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Social, Cultural, and Philosophical Issues in Education	EDUC	311	3	(3,0)
Genetics	BIOL	308	4	(3,2)
Cell Biology	BIOL	205	3	(3,0)
Physics for Biology and Premedicine	PHYS	206	3	(3,0)
Physics for Biology and Premedicine Lab ...	PHYS	256	1	(0,2)
+1st Year and 2nd Year Advanced ROTC				

SENIOR YEAR

**Internship in Teaching	EDUC	499	12	
**Special Methods in Teaching	EDUC	402	3	(3,0)

HOURS REQUIRED FOR GRADUATION: 127 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

EDUCATION MAJOR**(English)****First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
Finite Mathematics	MATH	105	3	(3,0)
General Biology I	BIOL	101	3	(3,0)
General Biology Laboratory I	BIOL	111	1	(0,2)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Chemistry or Physics			4	(3,2)
Social Studies (other than History)			3	(3,0)
Educational Psychology	EDUC	202	3	(3,0)
Introduction to Public Speaking	ENGL	205	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

General Psychology	PSYC	201	3	(3,0)
Adolescent Development	EDUC	308	3	(3,0)
+++American Literature Elective	ENGL		3	(3,0)
Survey of World Literature	ENGL	405	3	(3,0)
Music Appreciation	FNAR	205	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Methods and Materials of Secondary School Teaching	EDUC	401	3	(3,0)
Social and Cultural History of the Non-Western World	HIST	417	3	(3,0)
The English Language	ENGL	415	3	(3,0)
Adolescent Literature	ENGL	425	3	(3,0)
Approved Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

+++Select from ENGL 341, 342, 343, and 344.

EDUCATION MAJOR

(English)

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
General Biology II	BIOL	102	3	(3,0)
General Biology Laboratory II	BIOL	112	1	(0,2)
History of Western Civilization	HIST	104	3	(3,0)
Education in Modern Society	EDUC	101	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Chemistry or Physics			4	(3,2)
Social Science Core Course			3	(3,0)
Art Appreciation	FNAR	206	3	(3,0)
Teaching Reading in the Secondary School	EDUC	208	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Social, Cultural, and Philosophical Issues in Education	EDUC	311	3	(3,0)
Principles of Literary Criticism	ENGL	407	3	(3,0)
Effective Writing	ENGL	413	3	(3,0)
Modern English Grammar	ENGL	414	3	(3,0)
+++American Literature Elective	ENGL		3	(3,0)
+1st Year and 2nd Year Advanced ROTC				

SENIOR YEAR

**Internship in Teaching	EDUC	499	12	
**Special Methods in Teaching	EDUC	402	3	(3,0)

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

EDUCATION MAJOR**(History)****First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
Finite Mathematics	MATH	105	3	(3,0)
General Biology I	BIOL	101	3	(3,0)
General Biology Laboratory I	BIOL	111	1	(0,2)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Chemistry or Physics			4	(3,2)
World Geography	GEOG	209	3	(3,0)
Educational Psychology	EDUC	202	3	(3,0)
Survey of American History	HIST	201	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

General Psychology	PSYC	201	3	(3,0)
Adolescent Development	EDUC	308	3	(3,0)
Social Science Core Courses			3	(3,0)
Latin American History	HIST	451	3	(3,0)
Music Appreciation	FNAR	205	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR**Methods and Materials of Secondary**

School Teaching	EDUC	401	3	(3,0)
Social and Cultural History of the				
Non-Western World	HIST	417	3	(3,0)
History of Modern Russia	HIST	424	3	(3,0)
History Elective	HIST		3	(3,0)
Approved Elective			3	(3,0)

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

**EDUCATION MAJOR
(History)**

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
General Biology II	BIOL	102	3	(3,0)
General Biology Laboratory II	BIOL	112	1	(0,2)
History of Western Civilization	HIST	104	3	(3,0)
Education in Modern Society	EDUC	101	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Chemistry or Physics			4	(3,2)
Survey of American History	HIST	202	3	(3,0)
Art Appreciation	FNAR	206	3	(3,0)
Teaching Reading in the Secondary School	EDUC	208	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Social, Cultural, and Philosophical Issues in Education	EDUC	311	3	(3,0)
The American South	HIST	401	3	(3,0)
History Elective	HIST		3	(3,0)
History Elective	HIST		3	(3,0)
Approved Elective			3	(3,0)
+1st Year and 2nd Year Advanced ROTC				

SENIOR YEAR

**Internship in Teaching	EDUC	499	12	
**Special Methods in Teaching	EDUC	402	3	(3,0)

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

EDUCATION MAJOR
(Mathematics)
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
College Algebra and Trig	MATH	119	4	(4,0)
General Biology I	BIOL	101	3	(3,0)
General Biology Laboratory I	BIOL	111	1	(0,2)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Chemistry or Physics			4	(3,2)
Social Science Core Course			3	(3,0)
Educational Psychology	EDUC	202	3	(3,0)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Introduction to Probability and Statistics	STAT	361	3	(3,0)
Introduction to Computer Science I	CSCI	201	4	(3,2)
Adolescent Development	EDUC	308	3	(3,0)
Linear Algebra	MATH	240	3	(3,0)
Music Appreciation	FNAR	205	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Methods and Materials of Secondary				
School Teaching	EDUC	401	3	(3,0)
Social and Cultural History of the				
Non-Western World	HIST	417	3	(3,0)
Modern Algebra I	MATH	303	3	(3,0)
Mathematical Models and Appl.	MATH	470	3	(3,0)
History of Mathematics	MATH	412	3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

EDUCATION MAJOR
(Mathematics)
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
General Biology II	BIOL	102	3	(3,0)
General Biology Laboratory II	BIOL	112	1	(0,2)
History of Western Civilization	HIST	104	3	(3,0)
Education in Modern Society	EDUC	101	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Chemistry or Physics			4	(3,2)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Social Studies (other than History)			3	(3,0)
Teaching Reading in the Secondary School	EDUC	208	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Social, Cultural, and Philosophical				
Issues in Education	EDUC	311	3	(3,0)
Art Appreciation	FNAR	206	3	(3,0)
Differential Equations	MATH	232	3	(3,0)
Modern Geometry	MATH	305	3	(3,0)
General Psychology	PSYC	201	3	(3,0)
+1st Year and 2nd Year Advanced ROTC				

SENIOR YEAR

**Internship in Teaching	EDUC	499	12	
**Special Methods in Teaching	EDUC	402	3	(3,0)

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

EDUCATION MAJOR**(Science)****First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
College Algebra and Trig	MATH	119	4	(4,0)
General Biology I	BIOL	101	3	(3,0)
General Biology Laboratory I	BIOL	111	1	(0,2)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry Lab I	CHEM	161	1	(0,2)
Social Science Core Course			3	(3,0)
Educational Psychology	EDUC	202	3	(3,0)
Astronomy	ASTR	201	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

General Psychology	PSYC	201	3	(3,0)
Adolescent Development	EDUC	308	3	(3,0)
Introduction to Earth Science I	GEOL	201	3	(3,0)
Introduction to Earth Science Lab I	GEOL	211	1	(0,2)
Physics for Engineers and Scientists	PHYS	210	3	(3,0)
Physics for Engineers and Scientists Lab	PHYS	260	1	(0,2)
Music Appreciation	FNAR	205	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Methods and Materials of Secondary				
School Teaching	EDUC	401	3	(3,0)
Social and Cultural History of the				
Non-Western World	HIST	417	3	(3,0)
Physics for Engineers and Scientists	PHYS	212	3	(3,0)
Physics for Engineers and Scientists Lab	PHYS	262	1	(0,2)
Genetics	BIOL	308	4	(3,2)
+++Science Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

+++GEOL 308 or BIOL 409.

EDUCATION MAJOR
(Science)
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
General Biology II	BIOL	102	3	(3,0)
General Biology Laboratory II	BIOL	112	1	(0,2)
History of Western Civilization	HIST	104	3	(3,0)
Education in Modern Society	EDUC	101	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry Lab II	CHEM	162	1	(0,2)
Art Appreciation	FNAR	206	3	(3,0)
Social Studies (other than History)			3	(3,0)
Teaching Reading in the Secondary School	EDUC	208	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Social, Cultural, and Philosophical Issues in Education	EDUC	311	3	(3,0)
Introduction to Earth Science II	GEOL	202	3	(3,0)
Introduction to Earth Science Lab II	GEOL	212	1	(0,2)
Physics for Engineers and Scientists	PHYS	211	3	(3,0)
Physics for Engineers and Scientists Lab	PHYS	261	1	(0,2)
Organic Chemistry I	CHEM	207	3	(3,0)
Organic Chemistry Lab I	CHEM	217	1	(0,3)
+1st Year and 2nd Year Advanced ROTC				

SENIOR YEAR

**Internship in Teaching	EDUC	499	12	
**Special Methods in Teaching	EDUC	402	3	(3,0)

HOURS REQUIRED FOR GRADUATION: 127 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

EDUCATION MAJOR
(Social Studies)
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
Finite Mathematics	MATH	105	3	(3,0)
General Biology I	BIOL	101	3	(3,0)
General Biology Laboratory I	BIOL	111	1	(0,2)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Chemistry or Physics			4	(3,2)
American National Government	PSCI	102	3	(3,0)
Educational Psychology	EDUC	202	3	(3,0)
Introduction to Sociology	SOCI	201	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

General Psychology	PSYC	201	3	(3,0)
Adolescent Development	EDUC	308	3	(3,0)
Survey of American History	HIST	201	3	(3,0)
Cultural Anthropology	ANTH	202	3	(3,0)
Music Appreciation	FNAR	205	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Methods and Materials of Secondary School Teaching	EDUC	401	3	(3,0)
Social and Cultural History of the Non-Western World	HIST	417	3	(3,0)
+++Approved Elective			3	(3,0)
+++Approved Elective			3	(3,0)
+++Approved Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

+++Selected from anthropology, geography, political science, economics, psychology, or history.

EDUCATION MAJOR
(Social Studies)
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
General Biology II	BIOL	102	3	(3,0)
General Biology Laboratory II	BIOL	112	1	(0,2)
History of Western Civilization	HIST	104	3	(3,0)
Education in Modern Society	EDUC	101	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Chemistry or Physics			4	(3,2)
Principles of Macroeconomics	BADM	201	3	(3,0)
Art Appreciation	FNAR	206	3	(3,0)
Teaching Reading in the Secondary School .	EDUC	208	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Social, Cultural, and Philosophical Issues in Education	EDUC	311	3	(3,0)
Survey of American History	HIST	202	3	(3,0)
World Geography	GEOG	209	3	(3,0)
Urban Politics	PSCI	302	3	(3,0)
Social Science Core Course			3	
+1st Year and 2nd Year Advanced ROTC				

SENIOR YEAR

**Internship in Teaching	EDUC	499	12	
**Special Methods in Teaching	EDUC	402	3	(3,0)

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

ELECTRICAL ENGINEERING MAJOR**First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry Laboratory I	CHEM	161	1	(0,2)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
History of Western Civilization	HIST	103	3	(3,0)
Engineering Fundamentals I	ELEC	104	2	(2,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Physics for Engineers and Physical Scientists	PHYS	210	3	(3,0)
Physics for Engineers and Physical Scientists Laboratory	PHYS	260	1	(0,2)
Electric Circuit Analysis I	ELEC	201	3	(3,0)
Computer Applications for Electrical Engineers	ELEC	206	2	(2,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Applied Mathematics II	MATH	335	3	(3,0)
Linear Circuit Analysis	ELEC	309	3	(3,0)
Engineering Administration	CIVL	314	2	(2,0)
Digital Logic and Circuits	ELEC	311	3	(3,0)
Electronics I	ELEC	306	3	(3,0)
Linear Circuits Laboratory	ELEC	301	1	(0,2)
Electronics Laboratory	ELEC	313	1	(0,2)
+1st Year Advanced ROTC				

SENIOR YEAR

Design I	ELEC	421	3	(1,4)
**Non-Departmental Elective			3	(3,0)
***Approved Elective	ELEC		3	(3,0)
***Approved Elective	ELEC		3	(3,0)
***Approved Elective	ELEC		3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit. Lecture, laboratory hours, in that order.

**Advanced humanities or social science course.

***APPROVED ELECTIVES must be selected from among the following courses: ELEC 401, ELEC 403, ELEC 404, ELEC 405, ELEC 407, ELEC 413, ELEC 414, ELEC 415, ELEC 416, ELEC 423, ELEC 424, and ELEC 426.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

ELECTRICAL ENGINEERING MAJOR

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry Laboratory II	CHEM	162	1	(0,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
History of Western Civilization	HIST	104	3	(3,0)
Engineering Fundamentals II	ELEC	105	2	(2,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Applied Mathematics I	MATH	234	4	(4,0)
Physics for Engineers and Physical Scientists	PHYS	212	3	(3,0)
Physics for Engineers and Physical Scientists Laboratory	PHYS	262	1	(0,2)
Electric Circuit Analysis II	ELEC	202	3	(3,0)
Electrical Laboratory	ELEC	204	1	(0,2)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Systems I	ELEC	312	3	(3,0)
Electromechanical Energy Conversion	ELEC	316	3	(3,0)
Digital Systems Engineering	ELEC	330	3	(3,0)
Electrical Machinery Laboratory	ELEC	302	1	(0,2)
++Technical Elective			3	(3,0)
Electromagnetic Fields	ELEC	318	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Design II	ELEC	422	3	(1,4)
Social Science Core Course			3	(3,0)
***Approved Elective	ELEC		3	(3,0)
***Approved Elective	ELEC		3	(3,0)
***Approved Elective	ELEC		3	(3,0)
+2nd Year Advanced ROTC				

++Technical Elective: Optics (PHYS 308), Nuclear Engineering (ELEC 307), Software Engineering (CSCI 420), or Thermodynamics (PHYS 410).

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

ENGLISH MAJOR**First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
Finite Mathematics	MATH	105	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Survey of English Literature	ENGL	213	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Mythology, or	ENGL	211	3	(3,0)
The Bible as Literature	ENGL	212		
Social Science Core			3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Shakespeare, or	ENGL	317	3	(3,0)
Shakespeare	ENGL	318		
Approved Elective (Group B)	ENGL		3	(3,0)
Approved Elective	ENGL		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

***American Literature Elective	ENGL		3	(3,0)
**Approved Elective (Group A)	ENGL		3	(3,0)
Approved Elective	ENGL		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**ENGL 301, ENGL 317, ENGL 318, and ENGL 319 may not be used to satisfy this requirement.

***Students must take six hours of American Literature (ENGL 341, ENGL 342, ENGL 343, or ENGL 344).

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

ENGLISH MAJOR
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Survey of English Literature	ENGL	214	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Introduction to Philosophy	PHIL	201	3	(3,0)
Elective			3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Chaucer, or	ENGL	301	3	(3,0)
Milton	ENGL	319		
Approved Elective (Group C)	ENGL		3	(3,0)
Approved Elective	ENGL		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

***American Literature Elective	ENGL		3	(3,0)
Approved Elective (Group C)	ENGL		3	(3,0)
Approved Elective	ENGL		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

FRENCH MAJOR

First Semester

FRESHMAN YEAR

Elementary French Communications I	FREN	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Finite Mathematics	MATH	105	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Intermediate French Communication	FREN	201	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Advanced French Conversation	FREN	301	3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Introduction to Linguistics	LING	300	3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Modern Language	FREN		3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**If both courses are taken, the other may serve as a substitute for an Advanced Modern Language or an Elective.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

FRENCH MAJOR

Second Semester

FRESHMAN YEAR

Elementary French Communication II	FREN	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Applied Calculus I	MATH	106	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

French Reading, Conversation and Composition	FREN	202	3	(3,0)
Major British Writers	ENGL	202	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Advanced French Composition	FREN	302	3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Grammar, Syntax, & Translation	FREN	490	3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
**MLNG 410 or MLNG 420			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

GERMAN MAJOR First Semester

FRESHMAN YEAR

Elementary German I	GERM	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Finite Mathematics	MATH	105	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Intermediate German I	GERM	201	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Advanced German Conversation	GERM	301	3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Introduction to Linguistics	LING	300	3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Modern Language	GERM		3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**If both courses are taken, the other may serve as a substitute for an Advanced Modern Language or an Elective.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

GERMAN MAJOR Second Semester

FRESHMAN YEAR

Elementary German II	GERM	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Applied Calculus I	MATH	106	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Intermediate German II	GERM	202	3	(3,0)
Major British Writers	ENGL	202	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Advanced German Composition	GERM	302	3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Modern Language	GERM		3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
**MLNG 410 or MLNG 420			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

HEALTH AND PHYSICAL EDUCATION MAJOR**Teaching Track****First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
Finite Mathematics	MATH	105	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
Introduction to Physical Education	PHED	101	3	(3,0)
General Biology I	BIOL	101	3	(3,0)
General Biology Laboratory I	BIOL	111	1	(0,2)
+1st Year Basic ROTC				
Required Physical Education	RPED	113	0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Physical Science (Chemistry or Physics)			4	(3,2)
Social Science Core Course			3	(3,0)
Music Appreciation	FNAR	205	3	(3,0)
Methods of Teaching Gymnastics	PHED	220	1	(1,0)
Methods of Teaching Rhythmic Activities	PHED	221	1	(1,0)
Basketball Theory	PHED	224	1	(1,0)
Baseball Theory	PHED	225	1	(1,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Human Anatomy	BIOL	303	3	(3,0)
Human Anatomy Laboratory	BIOL	305	1	(0,2)
Child Development	EDUC	307	3	(3,0)
Educational Psychology	EDUC	202	3	(3,0)
Elective			3	(3,0)
Methods of Teaching Wrestling	PHED	230	1	(1,0)
Track & Field Theory	PHED	231	1	(1,0)
Elementary School Physical Education	PHED	433	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Special Physical Education	PHED	403	3	(2,2)
Physiology of Exercise	PHED	419	3	(2,2)
Teaching Reading in the Secondary School	EDUC	208	3	(3,0)
Elective			3	(3,0)
Social and Cultural History of the Non-Western World	HIST	417	3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credits, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

HEALTH AND PHYSICAL EDUCATION MAJOR

Teaching Track Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)*
Applied Calculus I	MATH	106	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
Learning Theory and Methodology in Physical Education	PHED	102	3	(2,2)
Measurement and Evaluation in Physical Education	PHED	205	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Physical Science (Chemistry or Physics)			4	(3,2)
Methods of Teaching Aquatics	PHED	222	1	(1,0)
Methods of Teaching Outdoor Education	PHED	223	1	(1,0)
Football Theory	PHED	226	1	(1,0)
Soccer Theory	PHED	227	1	(1,0)
Art Appreciation	FNAR	206	3	(3,0)
Adolescent Development	EDUC	308	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Human Physiology	BIOL	304	3	(3,0)
Human Physiology Laboratory	BIOL	306	1	(0,2)
Biomechanical Kinesiology	PHED	314	3	(2,2)
Social, Cultural, and Philosophical Issues in Education	EDUC	311	3	(3,0)
Care and Prevention of Athletic Injuries	PHED	402	3	(2,2)
Methods of Teaching Lifetime Sports	PHED	228	1	(1,0)
Adult Fitness Programming	PHED	229	1	(1,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Administration of Physical Education	PHED	404	3	(3,0)
Internship in Teaching	PHED	499	12	
Senior Seminar	PHED	421	1	(1,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 129 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

HEALTH AND PHYSICAL EDUCATION MAJOR
Professional Track
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
Finite Mathematics	MATH	105	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
Introduction to Physical Education	PHED	101	3	(3,0)
General Biology I	BIOL	101	3	(3,0)
General Biology Laboratory I	BIOL	111	1	(0,2)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Physical Science (Chemistry or Physics)			4	(3,2)
Social Science Core Course			3	(3,0)
**Approved Elective			3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Human Anatomy	BIOL	303	3	(3,0)
Human Anatomy Laboratory	BIOL	305	1	(0,2)
First Aid and Emergency Care	HLED	300	3	(3,0)
**Approved Elective			3	(3,0)
A Modern Language			3	(3,0)
**Approved Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Special Physical Education	PHED	403	3	(2,2)
Physiology of Exercise	PHED	419	3	(2,2)
**Approved Elective			3	(3,0)
**Approved Elective			3	(3,0)
**Approved Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**Approved Electives are determined by the Professional Track selected, Health/Wellness or Sports Management/Administration. Complete list of Approved Electives are available in the section of this catalogue on Department of Health and Physical Education.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

HEALTH AND PHYSICAL EDUCATION MAJOR

Professional Track

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
Learning Theory and Methodology in Physical Education	PHED	102	3	(2,2)
Measurement and Evaluation in Physical Education	PHED	205	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Physical Science (Chemistry or Physics)			4	(3,2)
A Modern Language			3	(3,0)
Developmental Psychology	PSYC	202	3	(3,0)
Introduction to Public Speaking	ENGL	205	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Human Physiology	BIOL	304	3	(3,0)
Human Physiology Laboratory	BIOL	306	1	(0,2)
Care and Prevention of Athletic Injuries	PHED	402	3	(2,2)
Biomechanical Kinesiology	PHED	314	3	(2,2)
A Modern Language			3	(3,0)
**Approved Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Nutrition	HLED	401	3	(3,0)
Administration of Physical Education	PHED	404	3	(3,0)
Drug and Substance Abuse	HLED	402	3	(3,0)
**Approved Elective			3	(3,0)
Directed Field Experience	PHED	406	3	(1,6)
Senior Seminar	PHED	421	1	(1,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

HISTORY MAJOR

First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
Finite Mathematics	MATH	105	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
**1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
American Politics and Government	PSCI	201	3	(3,0)
A Survey of American History	HIST	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
**2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Group I History Elective	HIST		3	(3,0)
History Elective	HIST		3	(3,0)
Group III History Elective	HIST		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
***1st Year Advanced ROTC				

SENIOR YEAR

Group I History Elective	HIST		3	(3,0)
History Elective	HIST		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+Approved Elective	PSCI		3	(3,0)
**2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

+Must be numbered at the 300 or 400 level.

Group I (EUROPEAN): 321, 322, 323, 324, 325, 326, 327, 328, 421, 422, 423, 424, 435, 481, and 491.

Group II (AMERICAN): 301, 303, 305, 306, 401, 402, 403, 413, 471, 472, 473, 474, and 492.

Group III (LATIN AMERICA AND NON-WESTERN): 417, 425, 450, 451, 461, 477, and 493.

Group IV (DIPLOMATIC/MILITARY): 304, 410, 411, 482, 483, 485, 487, 488, 489, and 494.

HISTORY MAJOR

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
**1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Introduction to History	HIST	203	3	(3,0)
A Survey of American History	HIST	202	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
**2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Group II History Elective	HIST		3	(3,0)
Group IV History Elective	HIST		3	(3,0)
+Approved Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
**1st Year Advanced ROTC				

SENIOR YEAR

Group II History Elective	HIST		3	(3,0)
History Elective	HIST		3	(3,0)
+Approved Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
**2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

B.S. MATHEMATICS MAJOR**First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
A Modern Language			3	(3,0)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Physics for Engineers & Physical Scientists	PHYS	210	3	(3,0)
Physics for Engineers and Physical Scientists Laboratory	PHYS	260	1	(0,2)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Introductory to Discrete Structures	MATH	206	3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

***Biology or Chemistry			4	(3,2)
Modern Algebra I	MATH	303	3	(3,0)
Introduction to Probability and Statistics	STAT	361	3	(3,0)
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Introduction to Analysis I	MATH	403	3	(3,0)
**Approved Elective	MATH		3	(3,0)
**Approved Elective	MATH		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**Must be numbered at 300 or 400 level and selected in accordance with requirements for the Applied Mathematics or Pure Mathematics Option.

***Science must be CHEM 101 (111) and CHEM 102 (112) or BIOL 101 (111) and BIOL 102 (112).

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.S. MATHEMATICS MAJOR
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
A Modern Language			3	(3,0)
Introduction to Computer Science I	CSCI	201	4	(3,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
History of Western Civilization	HIST	104	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Differential Equations	MATH	232	3	(3,0)
Linear Algebra	MATH	240	3	(3,0)
Physics for Engineers and Physical Scientists	PHYS	211	3	(3,0)
Physics for Engineers and Physical Scientist Laboratory	PHYS	261	1	(0,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

***Biology or Chemistry			4	(3,2)
**Approved Elective	MATH		3	(3,0)
**Approved Elective	MATH		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

**Approved Elective	MATH		3	(3,0)
**Approved Elective	MATH		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

B.A. MATHEMATICS MAJOR

First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
Biology, Chemistry, or Physics			4	(3,2)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Elective			3	(3,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Introduction to Discrete Structures	MATH	206	3	(3,0)
Introduction to Probability and Statistics	STAT	361	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
Elective			3	(3,0)
Social Science Core Course			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Modern Algebra I	MATH	303	3	(3,0)
Mathematical Models and Applications	MATH	470	3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**Includes any mathematics course numbered at the 300 or 400 level.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.A. MATHEMATICS MAJOR
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Differential Equations	MATH	232	3	(3,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Linear Algebra	MATH	240	3	(3,0)
Introduction to Computer Science I	CSCI	201	4	(3,2)
History of Western Civilization	HIST	104	3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

**Math Elective	MATH		3	(3,0)
**Math Elective	MATH		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 122 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

PHYSICS MAJOR**First Semester****FRESHMAN YEAR**

++Approved Elective			3	(3,0)*
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
Composition and Literature I	ENGL	101	3	(3,0)
History of Western Civilization I	HIST	103	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Physics for Engineers and

Physical Scientists I	PHYS	210	3	(3,0)
Physics Laboratory for Physics I	PHYS	260	1	(0,2)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Major British Writers I	ENGL	201	3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Physics Eng & Phys Scientists III	PHYS	212	3	(3,0)
Physics Laboratory for Physics III	PHYS	262	1	(0,2)
Electronic Instrumentation	PHYS	307	3	(3,0)
Electronic Instrumentation Laboratory	PHYS	357	1	(0,2)
Analytical Mechanics I	PHYS	315	3	(3,0)
Applied Mathematics II	MATH	335	3	(3,0)
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry Laboratory I	CHEM	161	1	(0,2)
+1st Year Advanced ROTC				

SENIOR YEAR

Electricity and Magnetism I	PHYS	403	3	(3,0)
Quantum Mechanics I	PHYS	405	3	(3,0)
Advanced Laboratory Physics	PHYS	451	2	(0,4)
Research Planning	PHYS	419	2	(1,2)
+++Approved Elective			3	(3,0)
Social Science Core Course			3	(3,0)
+2nd Year Advanced ROTC				

+ROTC hours may vary each semester by military department; however the total hours which may be applied toward graduation requirements may not exceed 16 semester hours

++(PHYS 101, BIOL 101/111, BIOL 102/112, CSCI 115, ASTR 201, ASTR 202, alternate courses upon the approval of Department Head)

+++ (CHEM 300, PHYS 301, CHEM 305, BIOL 310, MATH 343, PHYS 409, ASTR 412, PHYS 415, PHYS 416, MATH 422, or alternate course upon the approval of Department Head) Approved Elective can be taken in the fall or spring term.

PHYSICS MAJOR

Second Semester

FRESHMAN YEAR

++Approved Elective			3	(3,0)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
Composition and Literature II	ENGL	102	3	(3,0)
History of Western Civilization II	HIST	104	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Physics for Engineers and				
Physical Scientists II	PHYS	211	3	(3,0)
Physics Laboratory for Physics II	PHYS	261	1	(0,2)
Applied Mathematics I	MATH	234	4	(4,0)
Major British Writers II	ENGL	202	3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Optics	PHYS	308	3	(3,0)
Optics Laboratory	PHYS	358	1	(0,2)
Modern Physics	PHYS	313	3	(3,0)
Analytical Mechanics II	PHYS	316	3	(3,0)
Mathematical Physics	PHYS	320	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry Laboratory II	CHEM	162	1	(0,2)
+1st Year Advanced ROTC				

SENIOR YEAR

Electricity and Magnetism	PHYS	404	3	(3,0)
Quantum Mechanics II	PHYS	406	3	(3,0)
Thermodynamics	PHYS	410	3	(3,0)
Senior Research Project	PHYS	420	3	(1,4)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and lab hours, in that order.

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from the successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

POLITICAL SCIENCE MAJOR

First Semester

FRESHMAN YEAR

Introduction to Political Science	PSCI	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

International Politics	PSCI	231	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Social Science Core Course			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

++Subfield Required Course	PSCI		3	(3,0)
American Politics Elective	PSCI		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Approved Elective	HIST		3	(3,0)
Principles of Macroeconomics	BADM	201	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Constitutional Law: Civil Rights	PSCI	462	3	(3,0)
++Subfield Required Course	PSCI		3	(3,0)
American Politics Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Majors must concentrate in one of three subfields: American Government and Politics; International Politics and Military Affairs; or Law and Criminal Justice.

POLITICAL SCIENCE MAJOR

Second Semester

FRESHMAN YEAR

American National Government	PSCI	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Comparative Politics	PSCI	232	3	(3,0)
Major British Writers	ENGL	202	3	(3,0)
Elective			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Political Theory	PSCI	392	3	(3,0)
++Subfield Required Course	PSCI		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Approved Elective	HIST		3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Approved Elective	PSCI		3	(3,0)
++Subfield Elective	PSCI		3	(3,0)
++Subfield Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

PSYCHOLOGY MAJOR**First Semester****FRESHMAN YEAR**

Composition and Literature	ENGL	101	3	(3,0)*
Finite Mathematics	MATH	105	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
General Psychology	PSYC	201	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
History of Western Civilization	HIST	103	3	(3,0)
A Modern Language			3	(3,0)
Research Design in Psychology	PSYC	203	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Experimental Psychology	PSYC	301	3	(3,0)
Theories of Personality	PSYC	306	3	(3,0)
Introduction to Philosophy	PHIL	201	3	(3,0)
Approved Elective	FNAR		3	(3,0)
Non-Departmental Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Psychology of Learning	PSYC	403	3	(3,0)
Industrial/Organizational Psychology	PSYC	404	3	(3,0)
Psychological Testing	PSYC	407	3	(3,0)
Approved Elective			3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

PSYCHOLOGY MAJOR

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
Developmental Psychology	PSYC	202	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Major British Writers	ENGL	202	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
History of Western Civilization	HIST	104	3	(3,0)
A Modern Language			3	(3,0)
Social Psychology	PSYC	305	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Physiological Psychology	PSYC	302	3	(3,0)
Abnormal Psychology	PSYC	304	3	(3,0)
Social Science Core Course			3	(3,0)
Non-Departmental Elective			3	(3,0)
Non-Departmental Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

History and Systems of Psychology	PSYC	405	3	(3,0)
Seminar in Contemporary Psychological Issues	PSYC	410	3	(3,0)
Approved Elective			3	(3,0)
Approved Elective			3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

SPANISH MAJOR

First Semester

FRESHMAN YEAR

Elementary Spanish Communication I	SPAN	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Finite Mathematics	MATH	105	3	(3,0)
History of Western Civilization	HIST	103	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Intermediate Spanish Communication	SPAN	201	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Advanced Spanish Conversation	SPAN	301	3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Introduction to Linguistics	LING	300	3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Modern Language	SPAN		3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**If both courses are taken, the other may serve as a substitute for an Advanced Modern Language or an Elective.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

SPANISH MAJOR
Second Semester

FRESHMAN YEAR

Elementary Spanish Communication II	SPAN	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Applied Calculus I	MATH	106	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Spanish Conversation, Reading and Composition	SPAN	202	3	(3,0)
Major British Writers	ENGL	202	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Advanced Spanish Composition	SPAN	302	3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Modern Language	SPAN		3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
**MLNG 410 or MLNG 420			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.



Department of Aerospace Studies

Department Head: Scott

Professor: Scott

Assistant Professors: McCullohs, Hinson, Jurewicz, Stanziano, Newman, Cook, Spurgurs

Citadel Air Force ROTC courses feature a wide variety of instruction and training opportunities. During the freshman and sophomore years, the curriculum provides students with an understanding of air power's past, present, and future roles in world affairs, as well as its relation to national defense. These courses cover the doctrine, mission, and organization of the defense establishment of the United States and examine the development of air power during this century.

During the junior and senior years, the Air Force ROTC program draws upon many academic principles. Included are communicative skills, a comprehensive analysis of defense policy and the national defense structure, the meaning of professionalism and professional responsibility, the military justice system, functions and practices of leadership and management principles, and problem solving. After the sophomore year, a transfer into Air Force ROTC will be permitted only when the transferring student wishes to pursue an Air Force commission.

Air Force Course Descriptions

AERO 101	<i>The Air Force Today I</i> (First Semester—Fourth Class Year)	One Credit Hour
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This course and its follow-on provide the student with an introductory survey of the United States Air Force. In the first semester, the course begins with a discussion of the development of the Air Force mission, functions, and organizations; Air Force doctrine; and the principles of flight. It continues with a discussion of the major commands and their missions, and current weapons systems in the Air Force inventory. Students are also given an introduction to communicative skills, human relations, and officership.

Lecture: two hours.

AERO 102	<i>The Air Force Today II</i> (Second Semester—Fourth Class Year)	One Credit Hour
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This course covers the Air Force's integration into our national strategy, as well as geopolitics and the instruments of national power. It also addresses the diverse roles of general purpose and aerospace support forces by examining their applications to the entire spectrum of conflict. U.S. Army, U.S. Navy, and Commonwealth of Independent States' forces are also discussed, along with a continued emphasis on communicative skills.

Lecture: two hours.

AERO 201 *The Development of Air Power I* One Credit Hour
(First Semester—Third Class Year)

This course explores two broad areas. First, the course examines the development of air power beginning with the first flights of the Wright brothers and ending with World War II. Second, it directs attention to the life of an Air Force officer, discussing such topics as professionalism, leadership, education, and advancement. Communication skills development continues.

Lecture: two hours.

AERO 202 *The Development of Air Power II* One Credit Hour
(Second Semester—Third Class Year)

As a follow-on to AERO 201, this course continues to examine the development of air power. It stresses a variety of events and elements in the history of air power, especially when these provide significant examples of the last 40 years, ending with an examination of the air operation in Desert Storm. Communication skills development continues.

Lecture: two hours.

AERO 301 *Air Force Leadership and Management I* Three Credit Hours
(First Semester—Second Class Year)

This integrated management course emphasizes the individual as a manager. Emphasis is given to the manager's environment and job, the management process, and an in-depth look at the function of leadership, motivation, and individual and group behavior. It discusses, within the context of a military organization, the management process of planning, organizing, staffing, and controlling. Organizational and personal values related to the individual manager's leadership styles are discussed. Included is a mini-course on individual communicative skills. The student develops his speaking, listening, and writing skills through oral and written presentations of military and current event topics.

Lecture: three hours.

AERO 302 *Air Force Leadership and Management II* Three Credit Hours
(Second Semester—Second Class Year)

This course deals with aspects of the military manager's work environment beyond the leadership aspect. Group dynamics, motivation, and personal values (ethics) are discussed within the context of the military organization. Cadets will use case study analysis to apply management and leadership principles to real life scenarios.

Lecture: three hours.

AERO 401 *U.S. National Security Policy I* Three Credit Hours
(First Semester—First Class Year)

This course studies the policy and process of national security. Specifically, the course reviews the varying U.S. approaches to national policy, the actors and processes involved in the determination of that policy, contemporary issues which impact national security forces and key national security issues. An in-depth look at the defense community's involvement in national security policy making is stressed.

Lecture: three hours.

AERO 402 *U.S. National Security Policy II* Three Credit Hours
(Second Semester—First Class Year)

During the second semester the noncontract student continues the study of U.S. defense policy and focuses on future career objectives. The noncontract student will attend minimal classes while doing independent research culminating in two major writing projects. For contract cadets the course stresses the officer's role in the military profession, the changing and demanding role of officership and the military profession, and the impact of professionalism on security policy. Also addressed are various contemporary issues which impact national security policy. Also addressed are various contemporary issues which impact national security forces, and essential elements of commissioned service. Various base visits and guest speakers give contract cadets a flavor of future military service.

Lecture: three hours.



Department of Biology

Department Head: Ross

Professors: Ross, Baldwin, Forsythe, Porcher, Runey, Wallace

Associate Professors: Bowman, Kelley

Assistant Professor: Murphy

The Biology Department is structured to offer courses which give the student a better understanding of himself, his relationship with his environment, and the diversity of life. Enrichment courses with minimum prerequisites are offered in summer and evening programs for interested individuals.

B.S. Biology Major

Requirements in the major include courses in physiology, field biology, descriptive biology, and developmental biology which meet the needs of a wide variety of programs in biology, medicine, secondary school science teaching, social work, wildlife, and conservation. Additional electives in biology may be selected to fulfill the interests of the individuals. Preparation for graduate school is encouraged.

Premedical-Pre dental Program

The student who is planning to enter medical school, dental school, veterinary school, or professional school in allied health should consider the B.S. Biology major which may be tailored to his special needs. The flexibility of the major course of study permits the pre-professional student to tailor his plan of study to each area of specialty. The department coordinates a voluntary program where students may gain practical experience before graduation. The large number of electives available in the biology curriculum makes it possible for the student to develop the broad science-humanities background necessary in the medical or dental profession.

Biology Course Descriptions

BIOL 101 *General Biology I*

Three Credit Hours

Normally offered in the fall semester of each academic year.

Prerequisite or corequisite: BIOL 111

The introductory course in biology is designed for both the major and non-major. Emphasis is placed on the methods of science, structural, molecular, and energetic basis of cellular activities, genetic variability and evolution, diversity

and life processes in plants and animals and principles of ecology.

Lecture: three hours.

BIOL 102 *General Biology II* Three Credit Hours

Normally offered in the spring semester of each academic year.

Prerequisite: BIOL 101 and BIOL 111; prerequisite or corequisite: BIOL 112

Continuation of General Biology I

Lecture: three hours.

BIOL 111 *General Biology I Laboratory* One Credit Hour

Normally offered in the fall semester of academic year.

Prerequisite or Corequisite: BIOL 101

The laboratory is designed to parallel the lecture content of BIOL 101.

Laboratory: two hours.

BIOL 112 *General Biology II Laboratory* One Credit Hour

Normally offered in the spring semester of each academic year.

Prerequisite: BIOL 101 and BIOL 111

Corequisite or Prerequisite: BIOL 102

The laboratory is designed to parallel the lecture content of BIOL 102.

Laboratory: Two hours.

BIOL 203 *Survey of the Plant Kingdom* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

A general survey of the vascular and nonvascular plants. Lecture and laboratory experiences will include a study of the characteristics, life cycles, evolutionary trends, ecological importance, and economic value of each plant group. Both the biology student and the non-major will receive a deeper appreciation of plants in their natural and man-made habitats.

Lecture: three hours; laboratory: two hours.

BIOL 204 *Basic Plant Structure* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

Normally offered in the spring semester of odd numbered years.

A study of cellular organization and tissue composition in the vegetative and reproductive organs of vascular plants with corresponding laboratory. This course would benefit those students interested in graduate school, wildlife, forestry and the teaching of science in secondary school.

Lecture: three hours; laboratory: two hours.

- BIOL 205 *Cell Biology* Three Credit Hours
Prerequisite: BIOL 102/112
Required of all Biology majors.
Normally offered in the fall semester of each academic year.
An introduction to the morphological, biochemical and biophysical properties of protoplasm and their significance in the life processes.
Lecture: three hours.
- BIOL 208 *Evolution* Three Credit Hours
Prerequisite: BIOL 102/112
Elective to all majors.
Normally offered in the spring semester of odd-numbered years.
A basic course in the concepts of evolution and population dynamics. The history of evolutionary thought, the processes of organic evolution, and systematics are conducted.
Lecture: three hours.
- BIOL 209 *Man and His Environment* Three Credit Hours
Elective to non-biology majors.
Normally offered in the fall semester of odd-numbered years.
A study of the interdependence of man and his environment. Emphasis will be on man's place in nature, pollution, man-modified habitats, and environmental protection.
Lecture: three hours.
- BIOL 301 *Invertebrate Zoology* Four Credit Hours
Prerequisite: BIOL 102/112
Elective to all majors.
Normally offered in the fall semester of odd-numbered years.
A general study of the invertebrate animals, including taxonomy, morphology, and ecology.
Lecture: two hours; laboratory: four hours.
- BIOL 302 *Comparative Vertebrate Anatomy* Four Credit Hours
Prerequisite: BIOL 102/112
Elective to all majors.
Normally offered in the spring semester of each academic year.
Comparative anatomy of certain vertebrate forms.
Lecture: two hours; laboratory: four hours.

- BIOL 303** *Human Anatomy* Three Credit Hours
Prerequisite: BIOL 101/111
Elective to non-biology majors.
Normally offered in the fall semester of each academic year.
Foundation material in mammalian anatomy which has been designed to give an understanding of basic human anatomy. Laboratory, BIOL 305, is optional.
Lecture: three hours.
- BIOL 304** *Human Physiology* Three Credit Hours
Prerequisite: BIOL 101/111
Elective to non-biology majors.
Normally offered in the spring semester of each academic year.
An introduction to the basic physics and chemistry of life, including a study of the machinery of the regulatory mechanisms of the human body. Laboratory, BIOL 306, is optional.
Lecture: three hours.
- BIOL 305** *Human Anatomy Laboratory* One Credit Hours
Prerequisite: BIOL 101/111
Corequisite or prerequisite: BIOL 303
Elective to non-biology majors.
Normally offered in the fall semester of each academic year.
Laboratory exercises to illustrate the relationship of structure of mammalian anatomy.
Laboratory: two hours.
- BIOL 306** *Human Physiology Laboratory* One Credit Hour
Prerequisite: BIOL 101/111
Corequisite or prerequisite: BIOL 304
Elective to non-biology majors.
Normally offered in the spring semester of each academic year.
The experiments demonstrate various physiological processes of life.
Laboratory: two hours.
- BIOL 307** *Animal Behavior (Ethology)* Three Credit Hours
Prerequisite: BIOL 102/112 or PSYC 201
Elective to all majors.
Normally offered in the spring semester of even-numbered years.
This course deals with the description, development, and adaptive nature of behavior in free-living animals. The laboratory will emphasize the description and qualifications of behavior patterns.
Lecture: two hours; laboratory: two hours.

BIOL 308 *Genetics*

Four Credit Hours

Prerequisite: BIOL 102/112 or permission of the instructor.

Required of all Biology majors.

Normally offered in the fall semester of each academic year.

A study of inheritance, including mendelian genetics, molecular genetics, changes in chromosome structure and number, cytogenetics, and population genetics.

Lecture: three hours; laboratory: two hours.

BIOL 310 *Microbiology*

Four Credit Hours

Prerequisite: BIOL 102/112 or approval of department head.

Elective to all majors.

Normally offered in the fall semester of each academic year.

A general study of microorganisms and their importance to man with special emphasis on their fundamental life processes. Includes a brief introduction to epidemiology and immunology.

Lecture: three hours; laboratory: three hours.

BIOL 314 *The Vascular Flora of South Carolina*

Four Credit Hours

Prerequisite: BIOL 102/112 or approval of instructor.

Elective to all majors.

Normally offered in the fall semester of even-numbered years.

An introductory study of the native vascular flora of South Carolina, emphasizing the identification and collection of native plants. The student will have practice in use of taxonomic keys and in preparation of specimens for The Citadel Herbarium.

Lecture: two hours; laboratory: four hours.

BIOL 315 *Biological Microtechnique and Instrumentation*

Three Credit Hours

Prerequisite: BIOL 102/112 or permission of the instructor.

Elective to all majors.

Normally offered in the fall semester of even-numbered years.

This course will introduce the student to the techniques of preparing, recording and illustrating biological material for light microscopical studies. The laboratory will stress microtomy, various types of microscopy, cytochemical procedures and photomicrographic techniques and related dark room procedures.

Lecture: two hours; laboratory: two hours.

BIOL 316 *Mycology* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

Normally offered in the fall semester of odd-numbered years.

A study of the morphology, classification, and ecology of the fungi commonly found in the coastal area of South Carolina.

Lecture: three hours; laboratory: three hours.

BIOL 321 *General Entomology* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

Normally offered in the fall semester of odd-numbered years.

An introduction to the study of insects and closely related arthropods, including their ecology, physiology, morphology, taxonomy, adaptations, and immature stages. Laboratory studies will emphasize field collection methods and curatorial techniques.

Lecture: three hours; laboratory: three hours.

BIOL 322 *History of Biology* Three Credit Hours

Prerequisite: BIOL 102/112 or permission of the instructor.

Elective to all majors.

Normally offered in the spring semester or odd-numbered years.

Major aspects of the development of biological sciences and their relationship to other scientific disciplines. Special attention will be paid to the development and content of theories and to changes in the methods of biological research.

Lecture: three hours.

BIOL 401 *Embryology* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

Normally offered in the fall semester of odd-numbered years.

A description of the developmental process including an analysis of underlying molecular mechanisms. In laboratory, a study of the anatomy of selected vertebrate embryos with additional experimental work on live sea urchins, snails and frogs.

Lecture: two hours; laboratory: four hours.

BIOL 402 *Descriptive Histology* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

Normally offered in the spring semester of even-numbered years. A detailed study of the chief types of animal tissues and a description of the histology and organs. Laboratory work includes microscopic study of cells, tissues, and organs of animals.

Lecture: three hours; laboratory: three hours.

BIOL 403 *Animal Physiology* Four Credit Hours

Prerequisites: BIOL 102/112 and CHEM 208 (Organic Chemistry)

Elective to all majors.

Normally offered in the fall semester of each academic year.

A systematic study of the general physiology of animal organ systems.

Lecture: three hours; laboratory: three hours.

This course formerly was entitled Mammalian Physiology.

BIOL 404 *Plant Physiology* Four Credit Hours

Prerequisites: BIOL 102/112 and BIOL 205

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

A comprehensive study of the physiological processes of living plants.

This course is designed to include both inorganic and organic metabolism while emphasizing the relationships of these processes to the entire plant.

Lecture: three hours; laboratory: three hours.

BIOL 405 *General Parasitology* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

Normally offered in the fall semester of even-numbered years.

Taxonomy, morphology, adaptation, and ecology of parasites affecting man and domestic animals. Life history, vectors, and controls are emphasized.

Lecture: three hours; laboratory: two hours.

BIOL 406 *Ecology* Four Credit Hours

Prerequisite: BIOL 102/112

Required of all Biology majors.

Normally offered in the spring semester each year.

An introduction to the study of biological interrelationships and the effects of the environment on the structure and function of animal populations. Laboratory will emphasize methods and materials of ecological investigations.

Lecture: two hours; laboratory: four hours.

BIOL 408 *Ornithology* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

A study of the structure, function, and ecology of birds. Field trips and bird specimens will give students a working knowledge of birds common to South Carolina.

Lecture: two hours; laboratory: four hours.

BIOL 409 *Marine Biology* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all juniors and seniors.

Normally offered in the spring semester of odd-numbered years.

The lectures cover major ecological factors and the fundamentals of oceanography. Laboratory work stresses the familiarities with species, taxonomic methods, sampling procedures, experimental design, use of equipment, and data handling.

Lecture: two hours; laboratory: four hours.

BIOL 410 *Vertebrate Natural History* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

Normally offered in the fall semester of even-numbered years.

An introduction to the classification, ecology, evolution and distribution of the vertebrates. Laboratory with emphasis on identification and field study techniques, especially with respect to the vertebrates of South Carolina.

Lecture: three hours; laboratory: two hours.

BIOL 411 *Senior Seminar* One Credit Hour

Required of all biology majors. Open only to seniors.

Normally offered in both fall and spring semesters.

A group study of current topics of biological interest.

Lecture: one hour.

BIOL 412 *Special Topics in Biology* Three Credit Hours

Prerequisite: permission of the instructor.

Offered on demand.

A course designed for the study of specialized topics in modern biology.

Lecture: three hours.

BIOL 419 *Economic Botany* Three Credit Hours

Prerequisite: BIOL 102/112 or approval of instructor.

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

An introductory course in economic botany devoted to the consideration of plants which are useful or harmful to man; their origins and history, botanical relationships, chemical constituents which make them economically important, and their roles in prehistoric and modern cultures and civilizations.

Lecture: three hours.

BIOL 420 *Senior Research Project* Three Credit Hours

Prerequisite: permission of department head and supervising instructor.

Normally offered both fall and spring semesters.

Independent study in undergraduate research for serious students planning graduate study.

Lecture: three hours.

BIOL 423 *Medical Microbiology* Three Credit Hours

Prerequisite: BIOL 310

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

The major communicable diseases of humans caused by bacteria, viruses, fungi, parasites and mycoplasma. Mechanisms of pathogenesis, susceptibility, resistance to infection, diagnosis, treatment, prevention and transmission. Also covered are host defense systems, responses to infection, chemotherapy principles, nosocomial and iatrogenic infections. The molecular basis of pathogenesis of selected infectious agents will be addressed.

Lecture: three hours.

BIOL 424 *Molecular Genetics* Four Credit Hours

Prerequisite: BIOL 308, CHEM 208; CHEM 409 Strongly Suggested; BIOL 310 suggested.

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

Coordinated lecture/laboratory class covering classical molecular and cellular biochemistry as well as modern molecular genetics. Study of the manner in which genetic information is carried in DNA and how DNA directs the synthesis of proteins in bacterial and eucaryotic cells and their associated viruses. Specific topics to be covered include: mechanisms governing gene expression metabolic control system, gene therapy, oncogenesis, molecular genetics of genetic diver-

sity, molecular basis of human diseases and review of known disease-causing genes such as the cystic fibrosis gene, Huntington's chorea gene and the Duchenne Muscular Dystrophy gene.

Lecture: three hours; laboratory: three hours.

BIOL 425 *Microbial Physiology* Four Credit Hours

Prerequisite: BIOL 102/112 or permission of the instructor; CHEM 208 and BIOL 310 are recommended.

Elective to all majors.

Normally offered in the spring semester of even-numbered years.

An in depth study of metabolic processes of microorganisms and how these processes may interact on other organisms.

Lecture: three hours; laboratory: two hours.

BIOL 426 *Freshwater Biology* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all majors.

Normally offered in the spring semester of even-numbered years.

The study of freshwater organisms and their environment. Instruction will cover the biological diversity, ecological and physiological adaptations and the physical setting of freshwater systems. Local systems of interest include large coastal rivers and lakes, upper portions of estuaries and old rice fields.

Lecture: two hours; laboratory: four hours.

BIOL 490 *Advanced Field Ecology* Five Credit Hours

Prerequisites: 6 semester hours of field biology and permission of the instructor. Offered on demand during the summer session.

A traveling seminar and field course to a designated biome or special natural area. Three weeks of directed reading and written preparation are required prior to participation in the field expedition. Field expeditions will normally require a minimum of two weeks travel time, depending upon the habitats selected and the type of travel required. All expedition participants will be required to prepare a collection of biological specimens that will become part of the permanent collection of the Department of Biology. In addition to tuition costs, students must bear all travel costs (i.e., room, board, and incidental expenses) while on expedition. General Ecology, General Entomology, Vascular Flora, Mycology, and Ornithology are strongly suggested as possible preparatory prerequisites.

Lectures, reading, and written preparation: three weeks.

Expedition time: two weeks.

Department of Business Administration

Department Head: Bebensee

Professors: Wittschen, Spivey, Pokryfka, Zigli, Vozikis, Moore, Alford, Simmons

Associate Professors: Whitney, Craig, Bebensee, Strauch, Kindel, Silver, Sparks, Greenawalt, Woolsey, Sharbrough

Assistant Professors: Foster, Moody

The mission of the Department of Business Administration at The Citadel is two-fold: to offer an undergraduate business program in a disciplined military environment along with a traditional evening Master of Business Administration program for working professionals, and to give all our students the knowledge and skills they need to assume positions of leadership in business and society. The Citadel's undergraduate experience is distinctive, in that it offers development of character and leadership through participation in the Corps of Cadets, small classes, faculty whose first priority is teaching, and professors who interact with students outside of the classroom and have the opportunity to live on campus, all of which comprise a unique learning community.

The Citadel's undergraduate program, our principal focus, blends four semesters of science, four semesters of English, four semesters of foreign language courses, other traditional liberal arts courses, and upper-level business courses with a demanding on-campus military leadership laboratory — the South Carolina Corps of Cadets. In the Corps, cadets are subject to a rigorous daily military schedule which starts at 6:00 a.m. and ends at midnight. This laboratory teaches self-awareness, stress management, creative problem-solving, communication, motivation, conflict management, and productive use of power and authority. In addition to living and working in this laboratory, cadets also take eight semesters of ROTC courses which emphasize communication skills, military professionalism, ethics, analysis of the defense structure, practice of leadership and management principles, and problem-solving skills.

In their junior and senior years, Citadel business majors use assignments from several different courses to build a portfolio of papers, case analyses, and class projects which demonstrate their competencies in oral and written communications, problem-solving, computer usage, and leadership skills. This portfolio may be used to show prospective employers examples of the kind of work they are capable of doing.

Faculty intellectual development activities, intellectual contributions, and service activities are viewed as important supporting elements of our teaching mission. Faculty members add to their expertise by participating in individual and group faculty development activities, conducting research projects, and interacting with practitioners in their fields.

For students interested in accounting careers, the Department offers an Accounting Concentration. Students who choose to pursue this option use all six

of their departmental elective slots to satisfy concentration requirements as specified in the "Courses of Study" section of this catalogue.

Persons interested in the Master of Business Administration program, which is offered only through evening classes, should consult the Graduate Programs catalogue for further information.

Business Course Descriptions

BADM 201 *Principles of Macroeconomics* Three Credit Hours

Required of all business administration sophomores; open to others.

A study of the origins of capitalism and the development of economic institutions; an introduction to economic principles, including an analysis of the determination of national income and its fluctuations, and an introduction to money, banking, and government finance. (May be taken after BADM 202.)

BADM 202 *Principles of Microeconomics* Three Credit Hours

Required of all business administration sophomores; open to others.

A study of value and price, including factors affecting short- and long-run adjustments of the individual firm with respect to prices, costs, and levels of production; value and price determination; market adjustments in competition and monopoly; distribution of income; international economics; and current economic problems. (May be taken before BADM 201.)

BADM 205 *Business Statistics I* Three Credit Hours

Prerequisite: MATH 105

Required of all business administration sophomores; open to others.

This course introduces the student to the concepts and techniques necessary to organize and analyze data. Topics covered in this course include data collection and presentation, probability distributions, sampling theory, hypothesis testing, analysis of variance, and simple regression analysis. Students will be introduced to computer-based tools used in the analysis of statistical data.

BADM 211 *Accounting Principles and Practices I* Three Credit Hours

Required of all business administration sophomores; open to others.

A study of the fundamentals of accounting, including the analysis and recording of business transactions and the preparation of financial statements.

BADM 212 *Accounting Principles and Practices II* Three Credit Hours

Prerequisite: BADM 211

Required of all business administration sophomores; open to others.

A continuation of BADM 211 with emphasis on accounting systems, partnerships, corporations, and cost accounting theory.

BADM 300 *Intermediate Accounting I* Three Credit Hours

Prerequisite: BADM 212

Open to business administration and other majors.

An emphasis on the balance sheet and the income statement, with particular emphasis on the techniques of evaluation of items comprising these statements.

BADM 301 *Intermediate Accounting II* Three Credit Hours

Prerequisite: BADM 300

Open to business administration and other majors.

A continuation of BADM 300 with emphasis on balance sheet liabilities and capital, the statement of changes in cash flow, and the analysis of financial statements.

BADM 302 *Managerial Accounting* Three Credit Hours

Prerequisite: BADM 212

Open to business administration and other majors.

A study of the accumulation and analysis of accounting data for management control and decision-making.

BADM 305 *Legal Environment of Business* Three Credit Hours

Required of all business administration juniors; open to other majors.

An introduction to the legal system, with special emphasis on its relation to business. Students will contend with federal and state regulations as well as the common law to arrive at an understanding of the legality, ethics, and social responsibility of business decisions. Topics include an introduction to the judicial system, torts and product liability, administrative law and consumer protection, agency and partnership, contracts, the Constitution, criminal law, ethics, and fiduciary trust.

BADM 309 *Marketing Principles* Three Credit Hours

Prerequisite: BADM 202

Required of all business administration juniors; open to others.

A study of macro- and micro-marketing issues including interrelationship of marketing activities and functioning of the national economy, and influence of consumer, competitive, and governmental pressure on the firm's marketing behavior. International and domestic marketing issues are examined.

BADM 312 *Taxation* Three Credit Hours

Prerequisite: BADM 212

Open to business administration and other majors.

A study of the basic principles of income taxation, including a thorough analysis of the present Federal law dealing with both individuals and corporations.

BADM 315 *Business Statistics II* Three Credit Hours

Prerequisite: BADM 205

Open to business administration and other majors.

A continuation of BADM 205, including an introduction to t, Poisson, and Chi-square distributions, tests of significance, regression and correlation analysis, index numbers, and simple and multiple correlation, as well as a more sophisticated exploration of sampling and probability theory. Students will be introduced to computer-based tools for statistical analysis of data.

BADM 316 *Communications in Business* Three Credit Hours

Prerequisite: Junior Standing

Open to business administration and other majors.

A study of written and oral interpersonal communication in goal-seeking organizations. Emphasis is given to communication theory, including barriers and types of communication flows in organizations, the psychology of communicating good neutral, negative, and persuasive messages, and the writing of formal reports.

BADM 318 *Commercial Law* Three Credit Hours

Prerequisite: BADM 305

Open to business administration and other majors.

A detailed examination of commercial law topics including sales, commercial paper, secured transactions, bulk transfers, and bankruptcy.

BADM 320 *International Business* Three Credit Hours

Open to business administration and other majors.

This course focuses on decisions in international business operations for small and large firms. Of particular interest are: international business climate/culture, foreign exchange rates, international trade, overseas direct investment, and operations management. Students will incorporate case studies dealing with aspects of international business.

BADM 321 *Business Finance* Three Credit Hours

Prerequisite: BADM 212

Required of all business administration juniors; open to other majors.

An introductory course combining both a description of the structure of business financing and a study of financial principles and practices, with special emphasis on their relation to managerial planning and control.

BADM 322 *Business Finance Cases and Applications* Three Credit Hours

Prerequisite: BADM 321

Open to business administration and other majors.

This course considers problems arising in the financial management of operations of nonfinancial firms. Emphasis is on the role of the finance executive in a business. Case analysis is employed to integrate theory with decision making.

BADM 325 *Principles of Management* Three Credit Hours

Required of all business administration juniors; open to other majors.

A survey of the fundamental concepts of organization and management with emphasis on the role of a manager as a decision-maker in a rapidly changing national and international environment with short- and long-range social, legal, and ethical ramifications. Special emphasis is placed on the leadership functions of planning, organizing, coordinating, motivating, and controlling through effective feedback.

BADM 326 *Principles of Real Estate* Three Credit Hours

Open to business administration and other majors.

This course provides a personal and professional perspective of the legal, financial, and ethical rights and obligations of all parties in a real estate transaction. Topics include organizing, functioning, financing, marketing, brokering, appraising, and managing of real estate transactions.

BADM 328 *Organization Theory and Behavior* Three Credit Hours

Prerequisite: BADM 325

Required of business administration juniors; open to other majors.

A study of the organization, focusing on interactions between organizational designs and people within an ethical framework. The dynamics and links between individuals, groups, and the national and international environment are analyzed to highlight the determinants of organizational effectiveness. A major focus is on the development of positive interpersonal relations.

BADM 401 *Cost Accounting* Three Credit Hours

Prerequisite: BADM 300

Open to business administration and other majors.

A course in the principles of cost accounting, including the accounting for materials, labor, and overhead under the job-order, process, and standard costs systems.

BADM 402 *Advanced Accounting Problems* Three Credit Hours

Prerequisite: BADM 300

Open to business administration and other majors.

A study of advanced accounting problems relating to partnerships, consolidations, consignments, installment sales, branch accounting, bankruptcy, and fund accounting.

BADM 404 *Investments* Three Credit Hours

Prerequisite: BADM 321

Open to business administration and other majors.

A survey course that introduces different types of securities, markets, transaction costs, security regulations, and taxes. The basic techniques for analyzing the potential returns and risks of individual securities and for combining them efficiently into portfolios are also studied.

BADM 405 *Marketing Management* Three Credit Hours

Prerequisite: BADM 309

Open to business administration and other majors.

A study of marketing planning and decision-making from the point of view of the marketing manager in a changing economic, social, and legal environment. Basic concepts and methods of analysis used in formulating product, distribution, promotion, and pricing strategy are studied.

BADM 407 *Money and Banking* Three Credit Hours

Prerequisite: BADM 201

Open to business administration and other majors.

The nature and functions of money; the various monetary standards; the development of our monetary system; the factors affecting the value of money; methods and objectives of money and credit control; international exchange; and analysis of recent developments in money and credit.

BADM 409 *Personnel Management* Three Credit Hours

Prerequisite: BADM 325

Open to business administration and other majors.

A contemporary course in the management of personnel as a resource concentrating on the historical, legal, social, economic, and ethical framework of labor relations with a focus on forecasting, planning, staffing, compensating, developing a career, labor relations, performance management, and control and evaluation of human resources.

BADM 410 *Production & Operations Management* Three Credit Hours

Prerequisites: BADM 202, BADM 205, BADM 212, and BADM 325

Required of all business administration seniors.

Analysis of the production function as the planning, organizing, directing, and controlling of the required activities and resources necessary to produce products and services. Managerial problems in the areas of plant design and location, production standards, operations planning and control, product development, materials handling, and inventory control are discussed.

BADM 411 *Business Information Systems* Three Credit Hours

Prerequisite: CSCI 110

Required of all business administration seniors.

An integrated perspective of the information systems environment with an emphasis on contemporary methodologies relevant to business. Topics include: decision support systems; office automation; expert systems; current systems, analysis and design; data flow; storage and retrieval processes; reports; and data base organization.

BADM 412 *International Economics* Three Credit Hours

Prerequisite: BADM 202

Open to business administration and other majors.

An analysis of the theoretical principles underlying international specialization and exchange, the making of international payments, the relation of international payments to national income, and the application of these principles to recent historical developments and to current national policies. An introduction is provided to the network, composition, and sources of world trade.

BADM 413 *International Marketing* Three Credit Hours

Prerequisite: BADM 309

Open to business administration and other majors

Introduction to global problems, issues, and decision areas facing the marketing manager for small and large firms. Case studies are utilized, and a research project is required.

BADM 414 *Consumer Behavior* Three Credit Hours

Prerequisite: BADM 309

Open to business administration and other majors.

The study of behavioral science theories and related marketing models useful to managers in understanding consumers in the domestic and international marketplace. A research project is required.

BADM 416 *Auditing* Three Credit Hours

Prerequisite: BADM 300

Open to business administration and other majors.

A study of auditing procedures with the emphasis on how to conduct an audit in a logical, proper manner and how to apply acceptable auditing standards. Internal control and accounting knowledge as applied to auditing are covered.

BADM 420 *Management of Change* Three Credit Hours

Prerequisite: Senior standing in business administration

Open to senior business administration majors.

This course uses knowledge and skills from the social sciences to develop strategies for achieving effective change within organizations. Implementation of these strategies to achieve more effective organizations is the core of this course. Topics include team building, process consultation, confrontation and the management of conflict, and technostructural change.

BADM 422 *Strategic Management* Three Credit Hours

Prerequisites: BADM 201, BADM 202, BADM 211, BADM 212, BADM 309, BADM 321, BADM 325

Required of all business administration seniors.

A capstone course designed to give the student practice in integrating the numerous theory courses in all phases of business management. The student

develops problem-solving and decision-making skills by assuming the role of top management in the study of actual business cases.

BADM 425 *Small Business Management/* Three Credit Hours
 Entrepreneurship

Prerequisite: Senior standing in business administration

Open to senior business administration majors

This course covers the environment of small business, factors of success or failure, small business management tools, and sources of financing. Student teams will prepare business plans for the start-up of a business. In some instances, the teams will work with local entrepreneurs in developing business plans. The course is supported by a multi-media business planning system.

BADM 430-435 *Seminar in Business Administration* Three Credit Hours

Prerequisite: approval of course instructor and department head.

Elective for business administration majors.

These courses are designed to provide students of exceptional ability and background with the opportunity to explore a variety of advanced, business-oriented, analytical techniques. Specified topics covered within these courses will be offered at the discretion of the instructor and under the supervision of the department head.

BADM 450 *Internship* Three Credit Hours

Prerequisite: Senior Standing

Open to senior business administration majors; other seniors need permission of the instructor

This course gives senior students real-world work experience to complement the classroom education they have already received. Interns will learn about the variety of issues faced by today's firms and their managers, the kinds of information firms collect and use, and the development of solutions for business problems. Interns will spend ten to twelve hours each week working alongside a senior-level manager in a Charleston-area business.

BADM 490 *Independent Study* Three Credit Hours

Prerequisite: Senior standing with at least a 3.0 academic average. Approvals for enrollment during pre-registration from sponsoring professor and department head are required.

This course may be taken by seniors desiring to engage in a scholarly research project of mutual interest to the student and the faculty member who directs the study. The project should culminate in a formal student research paper.

Department of Chemistry

Department Head: Blanton

Professor: May

Associate Professors: Rushing, Braun, Richardson, Blanton, McAfee

Assistant Professors: Zuraw, Mabrouk

The course of study for students majoring in chemistry is designed to prepare them to enroll as graduate students in full standing at leading universities; to provide the foundation for pursuing careers in medicine, dentistry, and other professions; and to fill positions as chemists in industrial laboratories. These curricula embody training in the four fundamental subdivisions of the science: inorganic, organic, analytical, and physical chemistry.

The department occupies Byrd Hall, which was completed in 1968. Within its 52,000 square feet, this facility houses a lecture theater; laboratories; a centrally located library; and conveniently located stockroom, preparation rooms, and balance rooms.

The B.S. in Chemistry curriculum is approved by the American Chemical Society, and a chapter of Student Affiliates of the ACS is active at The Citadel.

The B.S. in Chemistry curriculum is intended for those students who plan to go to graduate school in chemistry or chemical engineering or to fill positions in industrial laboratories. Students receiving this prestigious degree are awarded a certificate by the American Chemical Society documenting their status as professional chemists, and are frequently given preferential treatment as candidates for professional positions.

The B.A. curriculum provides great flexibility in choosing electives, and this permits a program to be designed to fit the student's individual aspirations. It is intended for those planning to enter medical, dental, or other professional schools; military service; or positions in industry.

Minor in Chemistry

Objectives: The Minor in Chemistry will provide students with a stronger background in chemistry than they would obtain from the requirements in the core curriculum. It is designed to acquaint students with the more advanced

theories and techniques that are illustrated in the major subfields of chemistry.

Knowledge and/or Skills to be Achieved: In general, the student completing the minor will have a more in-depth foundation in chemical bonding, physical properties and synthesis of compounds, chemical thermodynamics and kinetics, chemical and instrumental analyses, properties of biomolecules, and the design of polymers. More specifically, by his choice of advanced courses, the student may gain greater insight with regards to one or more of these general areas to meet specific career goals. Additionally, because the department places considerable emphasis on oral and written presentations, the student will gain considerable experience in interpreting and presenting chemical data in a professional manner.

This minor is not approved for students majoring in Chemistry.

Structure of the minor:

1. Required Courses: (8 Credit Hours)

CHEM 151	General Chemistry I*
CHEM 161	General Chemistry Laboratory I*
CHEM 152	General Chemistry II*
CHEM 162	General Chemistry Laboratory II*
CHEM 207	Organic Chemistry I
CHEM 217	Organic Chemistry Laboratory I
CHEM 208	Organic Chemistry II
CHEM 218	Organic Chemistry Laboratory II

*These four courses meet the requirements for the core curriculum and their hours are **not** counted toward the total for the Minor in Chemistry. Also note that CHEM 103/113 and CHEM 104/114 do **not** meet the requirements for the Minor in Chemistry.

2. Electives: (10 Credit Hours)**
 - A. One of the three sequential upper level offerings (300 or above)

CHEM 305/306	Physical Chemistry I & II
CHEM 300/302	Quantitative Analysis/Instrumental Analysis
CHEM 401/402	Inorganic Chemistry I & II
 - B. Any combination of additional upper-level chemistry courses which bring the total number of hours to at least 18 including at least one upper level laboratory course. Again, this total is exclusive of the eight hours of General Chemistry required for the core curriculum.

**Biology majors will be required to take 12 credit hours of upper level offerings. The additional courses must be approved in advance by the Head of the Department of Chemistry.

Total Credit Hours required—18

Pre-Medical Program

Students who plan to enter medical school or allied professional schools such as dental or veterinary school should consider the B.A. program in chemistry, and choose electives to broaden their preparation in other sciences and the humanities. Students who plan to enter medical school upon completion of their baccalaureate degrees should acquaint themselves with requirements of the medical schools of their choice and plan their programs accordingly. An extremely worthwhile reference to the entrance requirements for all medical schools in the United States and Canada is *Medical School Admission Requirements* published each year by the Association of American Medical Colleges, One DuPont Circle N.W., Washington, D.C. 20036.

Geology and Geography

The geology and geography courses offered by the college are administered by the Department of Chemistry. The professor of geology and geography is a member of the department. Geology offerings include an introductory geology course required for Civil Engineering majors and earth science and environmental geology courses required for Education majors whose teaching field is Science. Geography offerings include an introductory course required for Education majors (History and Social studies).

Requirements for Non-Science Students

Students majoring in an area other than a science or engineering may take chemistry to fulfill a portion of their science requirement; in this case, they must complete a four-course set, either CHEM 151/161 and CHEM 152/162, or CHEM 103/113 and CHEM 104/114. However, unless the student's degree plan stipulates they take CHEM 151/161 and CHEM 152/162, it is highly recommended they take CHEM 103/113 and CHEM 104/114.

Chemistry Course Descriptions

CHEM 103 *Introduction to Chemistry I*

Three Credit Hours

Corequisite or Prerequisite: CHEM 113

For non-science majors only.

The first semester of a course designed for students who do not expect to take any other course in chemistry. The course will cover the fundamentals of chemistry including electronic structure of the atoms, bonding, basic chemical calculations, gases, and various types of reactions. Mathematical emphasis will be less rigorous than in CHEM 151. Chemical processes of products used in everyday life will be stressed.

Lecture: three hours.

CHEM 104 *Introduction to Chemistry II* Three Credit Hours

Prerequisites: CHEM 103 and CHEM 113 or CHEM 151 and CHEM 161

Corequisite or Prerequisite: CHEM 114

For non-science majors only.

The concluding semester of a course designed for students who do not expect to take any other course in chemistry. Among the topics to be covered will be the relationship of chemistry to ecology, to the human body, to energy productions, and to product manufacturing. Emphasis will be placed on making the student a more informed consumer as he chooses and uses everyday products.

Lecture: three hours.

CHEM 113 *Introduction to Chemistry Laboratory I* One Credit Hour

Prerequisite or Corequisite: CHEM 103

Required of all students selecting CHEM 103.

Student-conducted laboratory procedures and experiments designed to parallel as closely as possible and to enhance the material covered in CHEM 103. Emphasis will be placed on basic laboratory techniques. Demonstrations will be used to illustrate important chemical concepts.

Laboratory: two hours.

CHEM 114 *Introduction to Chemistry Laboratory II* One Credit Hour

Prerequisites: CHEM 103 and CHEM 113

Corequisite or Prerequisite: CHEM 104

Required of all students selecting CHEM 104.

A continuation of CHEM 113. Experiments and demonstrations will parallel, as closely as possible, and enhance the material covered in CHEM 104. Preparation and analysis of some interesting common products will be conducted.

Laboratory: two hours.

CHEM 151 *General Chemistry I* Three Credit Hours

Corequisite or Prerequisite: CHEM 161; Chemistry majors must have a grade of C or higher.

Required of all freshmen majoring in the sciences and engineering; option for B.S. in Mathematics or Computer Science; elective to others.

Problem-solving techniques and essential concepts, including structure and properties, reactions, stoichiometry, states of matter, thermochemistry, and bonding. Calculators with logarithmic capability are required.

Lecture: three hours.

CHEM 152 *General Chemistry II* Three Credit Hours

Prerequisites: CHEM 151 and CHEM 161; Chemistry majors must have a grade of C or higher.

Corequisite or Prerequisite: CHEM 162

Required of all students majoring in the sciences and engineering; option for B.S. in Mathematics or Computer Science; elective to others.

Continuation of CHEM 151. Emphasis includes solutions, kinetics, equilibrium, acids and bases, solubility, redox, and an introduction to organic chemistry.

Lecture: three hours.

CHEM 161 *General Chemistry Laboratory I* One Credit Hour

Prerequisite or Corequisite: CHEM 151

Required of all students selecting CHEM 151.

Introduction to laboratory techniques, and experiments designed to accompany the topics covered in CHEM 151.

Laboratory: two hours. (Note: Chemistry majors register for a special section of this course which meets three hours a week.)

CHEM 162 *General Chemistry Laboratory II* One Credit Hour

Prerequisites: CHEM 151 and CHEM 161

Corequisite or Prerequisite: CHEM 152

Required of all students selecting CHEM 152.

A continuation of CHEM 161; experiments include an introduction to qualitative analysis, quantitative techniques, and selected instrumental methods.

Laboratory: two hours. (Note: Chemistry majors register for a special section of this course which meets three hours a week.)

CHEM 207 *Organic Chemistry I* Three Credit Hours

Prerequisites: CHEM 152 and CHEM 162; Chemistry majors must have a grade of C or higher.

Required of all sophomores majoring in chemistry.

A study of the aliphatic hydrocarbons, their preparations and reactions, with emphasis on reaction mechanisms and transformations.

Lecture: three hours.

CHEM 208 *Organic Chemistry II* Three Credit Hours

Prerequisites: CHEM 207 and CHEM 217

Corequisite or Prerequisite: CHEM 218

A study of aromatic compounds and the various functional classes of compounds. Emphasis will be placed on reactions, reaction mechanisms, and transformations. Important biomolecules will be covered briefly.

Lecture: three hours.

CHEM 217 *Organic Chemistry Laboratory I* One Credit Hour

Corequisite or Prerequisite: CHEM 207

A course which emphasizes the development of skill in the use of basic laboratory techniques through the completion of a series of experiments involving various types of reactions such as substitution, elimination, and addition reactions with an introduction to modern instrumentation such as the IR spectrophotometer, gas chromatograph, and NMR spectrometer.

Laboratory: three hours.

CHEM 218 *Organic Chemistry Laboratory II* One Credit Hour

Prerequisites: CHEM 207 and CHEM 217

Corequisite or Prerequisite: CHEM 208

A continuation of CHEM 217 with the emphasis on the synthesis, reactions, and identification of the various classes of organic compounds.

Laboratory: three hours.

CHEM 300 *Quantitative Analysis* Four Credit Hours

Prerequisites: CHEM 102 and CHEM 112 and MATH 107 or the equivalent or permission of the department head.

Required of all juniors majoring in chemistry; elective to others.

This course has as a primary focus the chemical principles involved with classical gravimetric and volumetric analysis; however, modern methods of analysis including colorimetry and potentiometry are introduced.

Lecture and discussion: three hours; laboratory: three hours.

CHEM 302 *Instrumental Methods* Four Credit Hours

Prerequisites: CHEM 300 and CHEM 305, or permission of the department head

Corequisite: CHEM 306

Required of all juniors majoring in chemistry; elective to others.

Modern instrumental methods of analysis are discussed, with emphasis on the physical or chemical principles involved in the method, design or analytical instruments, and treatment of analytical data. Laboratory work provides practice in the three major areas of instrument analysis—chromatography, electrochemistry, and spectroscopy.

Lecture: two hours; laboratory: four hours.

CHEM 305 and *Physical Chemistry I and II* Three Credit Hours

CHEM 306 Each Semester

Prerequisites: MATH 132 or MATH 107; and PHYS 211/261 or PHYS 206/256.

Corequisite for CHEM 305: CHEM 300

Prerequisite for CHEM 306: CHEM 305

Required of all juniors majoring in chemistry; elective to others.

CHEM 305 provides a detailed study of the laws of thermodynamics, Gibbs Energy calculations, and chemical equilibrium. CHEM 306 covers phase equilibria in both ideal and non-ideal solutions, surface thermodynamics, kinetic theory of gases, kinetics and mechanisms of reactions, viscosity, and electrical conductance of electrolyte solutions.

Lecture: three hours a week.

CHEM 308 *Chemical Literature*

One Credit Hour

Required of all chemistry majors; elective to others.

This course is an introduction to the literature of chemistry. In addition to the traditional printed primary, secondary, and tertiary sources, the student is introduced to on-line, computer-assisted searching of the literature.

Lecture and discussion: one hour.

CHEM 309 *Special Topics in Analytical Chemistry*

Three Credit Hours

Prerequisites: CHEM 302, either PHYS 206/256 or PHYS 211/261 or permission of the department head.

An in-depth study of selected contemporary methods of chemical analysis. Topics to be covered will depend on interests of a specific class.

Lecture: three hours.

CHEM 310 *Survey of Nuclear Science*

Three Credit Hours

Prerequisites: CHEM 300, MATH 106, and MATH 107 or equivalents; PHYS 206/256 or equivalent; or permission of the department head.

Elective course; not open to physics majors.

A survey of the field of nuclear science particularly as applied to chemistry.

Lecture: three hours.

CHEM 315 and CHEM 316 *Physical Chemistry Laboratory I & II*

One Credit Hour

Each Semester

Prerequisite: MATH 107, 232 or 234

Corequisites or Prerequisites: CHEM 305 and CHEM 306

Required of all chemistry majors; elective to others.

The first semester course will be devoted to attaining skills in the evaluation, analysis and presentation of experimental data. Topics covered will include graphing techniques, error analysis, extraction of useful quantities from raw data, use of computers in handling data, and the use of spreadsheets. The second semester work will be a hands-on study of experimental physical chemistry,

emphasizing the acquisition of data that can be analyzed using the skills learned in the first semester.

CHEM 320 *Polymer Chemistry* Three Credit Hours

Prerequisites: CHEM 208, CHEM 305 or approval of instructor

A general overview of polymer chemistry which includes mechanisms of polymerization, reactions of monomers, molecular weight distributions and limitations, polymer morphology and rheology, structure elucidation, applications, and industrial processing.

Lecture: three hours.

CHEM 401 *Inorganic Chemistry I* Three Credit Hours

Prerequisites: CHEM 208, CHEM 305 or approval of instructor

Required of all chemistry majors.

An introduction to the systematic chemistry of the elements and the structures and reactions of their compounds. Topics covered include atomic and bonding theories, acid-base theories, symmetry and spectroscopy, and chemistry of the main group elements.

Lectures: three hours.

CHEM 402 *Inorganic Chemistry II* Three Credit Hours

Prerequisites: CHEM 401

Required of all B.S. chemistry majors; elective to others.

The chemistry of the transition metals, including bonding theories, coordination compounds, organometallic chemistry, catalysis and bioinorganic chemistry.

Lecture: three hours.

CHEM 403 *Special Topics in Organic Chemistry* Three Credit Hours

Prerequisites: CHEM 207, CHEM 208, CHEM 217, and CHEM 218

Required of B.S. Chemistry majors; elective to others.

A study of certain topics not covered in the introductory course including carbohydrates, amino acids, peptides and proteins, terpenes, heterocyclic compounds, some sterols and steroids, nuclear magnetic resonance spectroscopy, and mass spectra.

Lecture: three hours.

CHEM 404 *Advanced Topics in Organic Chemistry* Three Credit Hours

Prerequisites: CHEM 207, CHEM 208, CHEM 217, and CHEM 218

Elective course.

Pericyclic reactions; photochemistry; ultraviolet and infrared spectroscopy;

and such classical topics as dicarboxylic acids, hydroxyacids, ketoacids, and polynuclear hydrocarbons.

Lecture: three hours.

CHEM 408 *Spectroscopic and Identification of Organic Compounds* Three Credit Hours

Prerequisites: CHEM 208, 218

Emphasis in this course will be placed on the spectroscopic techniques used in the identification of organic compounds. Techniques discussed and/or employed will include mass spectrometry and infrared, proton, and carbon NMR spectroscopy. Where applicable, the student will get practical experience in operating the instruments to complete course assignments.

CHEM 409 *Biochemistry* Three Credit Hours

Prerequisites: CHEM 207, CHEM 208, CHEM 217, and CHEM 218

Elective course.

A coverage of the chemistry of amino acids, peptides and proteins; enzymes; biochemical energetics; carbohydrates and their metabolism and storage; Kreb's cycle; electron transport system and oxidative phosphorylation; lipids with emphasis on fatty acid oxidation and synthesis and lipid biosynthesis; amino acid metabolism.

Lecture: three hours.

CHEM 412 *Preparation and Characterization of Inorganic and Organic Compounds* Two Credit Hour

Prerequisites or Corequisites: CHEM 408 and CHEM 402

Experimental techniques including inert-atmosphere techniques employed in the synthesis and characterization of various inorganic, organometallic, and organic compounds. Spectroscopy techniques include infrared and proton NMR spectroscopy.

Laboratory: six hours.

CHEM 419 *Senior Research I* Two Credit Hours

Required of all B.S. Chemistry majors; elective to others with permission of the department head.

This course provides an introduction to a research topic of the student's choosing and under the direction of a faculty advisor. After the topic has been approved by the faculty advisor, the student will be allowed to initiate the project. Using this topic, the student will be required to develop a research proposal which will be presented in the form of a seminar to the Chemistry Department Faculty and the chemistry majors.

CHEM 420 *Senior Research II* Two Credit Hours

Prerequisite: CHEM 419

A continuation of CHEM 419 in which the research project is completed and the data and results are compiled into a senior thesis. To finalize the project, the student will present a seminar to the Chemistry Department Faculty and chemistry majors and defend the thesis before a committee of faculty members from the Chemistry Department.

CHEM 425 *Senior Thesis I* Two Credit Hours

Required of all BA. chemistry majors.

This course requires an exhaustive literature search and the presentation of a seminar to the Chemistry Department Faculty and chemistry majors.

CHEM 426 *Senior Thesis II* Two Credit Hours

Prerequisite: CHEM 425

A continuation of CHEM 425 in which the literature review is continued and expanded into a senior thesis. To finalize the project, the student will present a seminar to the Chemistry Department Faculty and chemistry majors and defend the thesis before a committee of faculty members from the Chemistry Department.

Geology Course Descriptions

GEOL 201 *Introduction to Earth Science I* Three Credit Hours

Elective to upperclassmen.

Note—Education majors taking this course as a requirement must take GEOL 211 (lab) as a corequisite.

A study of the materials and processes of the earth including minerals and rocks, weathering and soils, mass wasting, surface and ground water, glaciers, deserts, earthquakes, plate tectonics, volcanoes, crustal deformation and mountain building, geochronology, fossils, and geologic history of the earth.

Lecture: three hours. (Fall, odd-numbered years.)

GEOL 202 *Introduction to Earth Science II* Three Credit Hours

Elective to upperclassmen.

Note—Education majors taking this course as a requirement must take GEOL 212 (lab) as a corequisite.

A study of oceans, continental margins, sediments, currents, tides, waves, shoreline features; weather and climate, atmospheric moisture, pressure and wind, hurricanes and tornadoes, air pollution, weather modification, astronomy, earth/moon relations, solar systems, stellar properties, and the origin of the universe.

Lecture: three hours. (Fall, even-numbered years.)

GEOL 211 *Earth Science Laboratory I* One credit hour

Elective to upperclassmen

Corequisite: GEOL 201

A series of laboratory exercises that parallels the subjects covered in GEOL 201.

Laboratory: two hours.

GEOL 212 *Earth Science Laboratory II* One credit hour

Corequisite: GEOL 202

Elective to upperclassmen

A series of laboratory exercises that parallels the subjects covered in GEOL 202.

Laboratory: two hours.

GEOL 303 *Geology for Engineers* Three Credit Hours

Required of and limited to juniors in civil engineering.

Minerals and rocks; structural geology; surface and ground water; other processes which shape the surface of the earth and their influence on engineering practice; earthquakes; geophysical exploration; geologic maps.

Lecture: two hours; laboratory: two hours.

GEOL 308 *Environmental Geology* Three Credit Hours

Prerequisite: none (GEOL 201 or GEOL 303 is recommended)

May not be substituted for GEOL 303

Elective to upperclassmen.

A study of the relationship between man and his geologic environment including such topics as hurricanes, floods, water and air pollution, energy and mineral resources, volcanic activity, and earthquakes.

Lecture: three hours.

Geography Course Descriptions

GEOG 209 *World Geography* Three Credit Hours

Formerly GEOG 109.

A course dealing primarily with the elements and principles of geography. Familiarity with important global features and locations is stressed. Topics include: maps, oceans, atmosphere and winds, climate (elements and patterns), landform, soils and agriculture, mineral resources and industry.

GEOG 311 *Economic Geography* Three Credit Hours

The geographic foundations and distributions of economic activities in different parts of the world.



Department of Civil Engineering

Department Head: Fallon

Professors: Lindbergh, Fallon

Associate Professors: Dion, Anessi, Stout, Woo, Brannan, Murden

The Civil Engineering Department's objectives are to provide the basic educational requirements for the profession of civil engineering, to prepare students to pursue advanced work in graduate schools of engineering, and to ensure an educational background broad enough to meet the requirements of good citizenship and service in other fields requiring leadership and problem-solving ability.

The four-year program begins with courses which provide a foundation of knowledge and skill in the basic arts and sciences. Limited specialization in engineering starts during the sophomore year. In the junior and senior years, the time is devoted essentially to basic professional subjects. Throughout the four years, the program emphasizes the development of habits of orderly study, investigation, sound reasoning, and problem-solving, rather than the mere acquisition of factual information. It is stressed that an engineer is a professional, thoroughly grounded in engineering science and technology, but also aware of the social, economic, ethical, and ecological implications of his professional activities.

Students who are on academic probation will not be permitted to enroll in upper level courses offered by the Civil Engineering Department (i.e. junior and senior level classes).

The civil engineering curriculum provided for the Corps of Cadets is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

Each year the curriculum is augmented by off-campus educators and engineers who lecture and moderate seminars in engineering specialties. Students' sources of knowledge are broadened by participation in these seminars and the student chapters of the American Society of Civil Engineers, Tau Beta Pi (honorary engineering society), Sigma Iota Delta (honorary civil engineering society), and the Society of American Military Engineers.

LeTellier Hall was renovated in 1985. It was specially designed for the needs of civil engineering education and contains, in addition to laboratories and classrooms, the John Anderson Memorial Library (containing engineering technical works, periodicals, and reference materials); an assembly room with appropriate audiovisual aids for special lectures and society meetings; well-equipped, well-lighted drafting rooms; and a computer center equipped with twenty-four work stations which access the VAX Cluster. In addition to 486 microcomputers which are available throughout the department, 8 AutoCad 486 workstations with two drafting plotters are provided for students and faculty.

Concrete Laboratory: A curing room, mixing equipment, air entraining measuring apparatus, scales, and other minor equipment are provided in this laboratory. Testing is done with Materials Laboratory equipment.

Materials Testing Laboratory: Major items of equipment include: a 400,000-pound universal hydraulic testing machine with a clearance of 8 feet for column testing and with a 36-inch-wide working platform; a 250,000 pound concrete cylinder testing machine; a 60,000-pound hydraulic universal testing machine with automatic stress-strain recorder; a 10,000-inch-pound torsion machine; and equipment for making tension, compression, hardness, fatigue, shearing, cold bend, sonic, and most other accepted and significant tests on metals, concrete, wood and other structural materials. A system 4000 Data Acquisition and Digital Strain Gage Measurement System is available. This laboratory also contains the most modern Polariscope and related equipment which determines stresses in a wide variety of two dimensional photoelastic models.

Bituminous Materials Testing Laboratory: This laboratory contains equipment for making the significant quality control and identification tests on asphalt cements, cutback asphalts, and asphalt emulsions. Equipment for the design, mixing, compaction, and testing of asphalt concrete paving mixtures by the Marshall and other methods is included.

Geotechnical Laboratories: The two soils laboratories are equipped with both scale and deadweight consolidmeters, triaxial and direct shear machines, unconfined compression machines, permeameters, Atterberg limit equipment, Proctor and modified AASHTO compaction apparatus, standard sieves, soil hydrometers, C.B.R. apparatus, and other equipment needed for tests and experiments with soils.

Fluid Mechanics Laboratory: Equipment is provided for a wide variety of experiments and tests involving the flow of water over weirs or through pipes, meters, orifices, or a Parshall flume. Other major items of equipment include a head loss and flow measurement fluid circuit apparatus, a Reynolds number device, two (2) hydraulic demonstration units permitting experiments involving many phenomena of open channel flow, and a centrifugal pump equipped to

measure input and output of energy.

Environmental Engineering Laboratory: Equipment is provided for water analysis determination (primarily according to "Standard Methods") of pH, alkalinity, turbidity, and color. Bacteriological examinations may also be made for wastewater analysis, biochemical and chemical oxygen demand, nitrogen content, and solids content. The equipment includes incubators, a muffle furnace, pH meters, electrophotometric devices, an autoclave, a constant temperature refrigerator, a drying oven, a water still, a fume hood, and essential minor tools and equipment.

Other engineering equipment: Adequate drafting equipment is available for the courses in engineering drawing, surveying, photogrammetry, as well as for the junior and senior courses. This equipment includes drafting machines, planimeters, rectoplanograph, stereocomparagraphs, stereoscope radial plotters, mechanical triangular set, pocket stenoscopes, height finders, and adequate stereoscopic aerial photographs. Transits, levels, theodolites, plane tables, compasses, sextants, level and stadia rods, chains, tapes and electronic distance measuring devices are used in the surveying course.

Degree: The degree of Bachelor of Science in Civil Engineering (B.S. in C.E.) is awarded to those who successfully complete the program of studies outlined in the course offerings section of this catalogue.

Three Humanity or Social Science electives, one technical elective, and one Civil Engineering elective are required. These are selected from a list of approved electives maintained by the Civil Engineering Department. In completing the three Humanities or Social Science electives the student will take one from the core curriculum, and a two-course sequence in at least one area of the humanities or social sciences. The sequence will include at least one course at an advanced level. The Civil Engineering design elective allows the students to specialize in a technical area of Civil Engineering by completing a design course at the senior level that integrates principles and practices of earlier courses into the design of the engineering system.

Civil Engineering Course Descriptions

CIVL 101 *Engineering Drawing* Two Credit Hours

Required of all Civil Engineering freshmen.

Use and care of drawing instruments; proper weights and types of lines for clear-cut and complete graphical representation; auxiliary and sectional views; pictorial representation with emphasis on isometric drawing, dimensioning, true lengths, and shapes; problems on points, lines, and planes; development of a reasonable skill in lettering. An introduction to computer graphics is presented.

Laboratory: four hours.

CIVL 102 *Introduction to Civil Engineering* Two Credit Hours

Required of all Civil Engineering freshmen.

The engineering process from problem formulation to the evolution of creative design, is demonstrated through the practical solution of engineering problems. Emphasis is placed upon analytical and problem-solving techniques, such as estimation and approximation; numerical aids to computation; and solutions by digital computer and by graphical methods. Problems are selected from the various areas of Civil Engineering such as surveying, environmental, structural, geotechnical, and highways. Computer instruction includes an introduction to DOS and spreadsheets. When authorized by the department head, ELEC 103 may be substituted for this course.

Laboratory: four hours.

CIVL 202 *Statics* Three Credit Hours

Corequisites: MATH 132 (Analytic Geometry and Calculus II) and PHYS 210/260 (Physics for Engineers and Physical Scientists)

Required of all civil engineering sophomores.

Scalar and vector solutions of problems in statics; principles of statics; resultants, reactions, and equilibrium of forces; analysis of simple trusses, friction; centroids and centers of gravity; and moments of inertia.

Lecture: two hours; laboratory: two hours.

CIVL 204 *Photogrammetry* One Credit Hour

Corequisite: CIVL 206

Required of all civil engineering sophomores.

An elementary course in aerial photography and topographic mapping; methods of topographic projections; planning topographic flights; basic photo-interpretations; geometric properties of photographs; radial line plotting; photographic measurements. An introduction to remote sensing and Geographic Information System (GIS) is also provided.

Laboratory: two hours.

CIVL 205 *Surveying I* Three Credit Hours

Corequisite: CIVL 101, CIVL 235

Required of all civil engineering sophomores.

Linear measurements; leveling; compass and transit/theodolite; theory of errors; latitudes and departures; areas; stadia; plane table; coordinate geometry; state plane coordinates; standard map projections and introduction to the use of electronic distance measuring devices.

Lecture: three hours.

CIVL 206 *Surveying II* Three Credit Hours

Prerequisites: CIVL 205 and CIVL 235; corequisite: CIVL 236

Required of all civil engineering sophomores.

Land surveying and boundary laws; public land surveys; areas and volumes; topographic mapping; route surveys; vertical, circular, and transition curves; lot calculations and construction surveys; and Polaris and solar observations. A solar or Polaris observation is required during the semester.

Lecture: three hours.

CIVL 209 *Computer Application for Civil Engineering* One Credit Hour

Instruction in digital computer language and systems using problems chosen from civil engineering fields and fields clearly related thereto.

Lecture: one hour; laboratory: one hour.

CIVL 235 *Survey I Laboratory* One Credit Hour

Corequisite: CIVL 205

Application of principles obtained in CIVL 205 through actual field work.

Horizontal control activities include distance measurements by tape and EDM, angular measurements by transit and theodolite; traversing; traverse closure computations; balancing computations; and preparation of boundary plat. Computer applications and computer aided drafting are available.

Laboratory: two hours.

CIVL 236 *Surveying II Laboratory* One Credit Hour

Corequisite: CIVL 206

Application of principals obtained in CIVL 206 through actual field work. Preparation of detailed site plan; topographic map preparation; volume calculations; curve layout; and computer applications.

Laboratory: two hours.

CIVL 301 *Dynamics* Three Credit Hour

Prerequisites: CIVL 202 with a grade of "C" or better.

Required of all civil engineering juniors.

Kinematics and Kinetics of particles or rigid bodies in plane motion with emphasis on the special cases of translation and rotation. The techniques of vector mathematics are employed.

Lecture: three hours.

CIVL 303 *Mechanics of Materials* Four Credit Hours

Prerequisites: CIVL 202 with a grade of "C" or better.

Corequisites: CIVL 307

Required of all civil engineering juniors.

Elastic properties of structural materials; internal stresses and strains; principal stresses and strains including Mohr's Circle; axial; torsion; flexure; shear; riveted and bolted joints; combined stresses; shear and moment diagrams; beam deflections; supplemented by CIVL 307, taken concurrently or subsequently to

CIVL 303.

Lecture: three hours; laboratory: two hours.

CIVL 305 *Transportation Engineering*

Three Credit Hours

Prerequisite: CIVL 206

Required of all civil engineering juniors.

Development and interrelationships of United States transportation systems; current problems and transportation projects; planning, financing, and design of land transportation, airport, and seaport facilities. Includes: road and railroad geometric and drainage design; sedimentation and erosion controls; airport layout and design; and design of harbors and port facilities.

Lecture: three hours.

CIVL 306 *Highway Engineering*

Two Credit Hours

Prerequisite: CIVL 305; corequisite: CIVL 326

Required of all civil engineering juniors.

Alignment and earthwork drawings and computations; earthwork operations; routine tests of highway materials, bituminous and non-bituminous; pavement and basic thickness design; design and testing of asphalt paving mixtures; constructions of roadway elements; construction surveys; and an introduction into construction specifications. Problems are solved by both manual and computer methods.

Lecture: two hours.

CIVL 307 *Materials Laboratory*

One Credit Hour

Prerequisite or corequisite: CIVL 303

Required of all civil engineering juniors.

Laboratory supplement to CIVL 303. Introduction to the use of testing machines and equipment; strength and deformation measurements of ferrous and non-ferrous metals, concrete, and wood; properties of materials as determined by results of tests in compression, tension, bending, torsion; behavior of columns; use of electric resistance strain gages; Rockwell and Brinell hardness tests; use of ASTM specifications and test procedures.

Laboratory: three hours.

CIVL 308 *Structural Analysis I*

Three Credit Hours

Prerequisites: CIVL 303 with a grade of "C" or better and MATH 132 (Analytic Geometry and Calculus II)

Required of all civil engineering juniors.

Analysis of simple structures; reactions; shear and moment for stationary and moving loads on beams; stresses in members of truss structures; force systems

in frames; influence line diagrams; and deflections of beams, frames, and trusses.
Lecture: three hours.

CIVL 314 *Engineering Administration* Two Credit Hours

Prerequisite: CIVL 209 or with permission of Department Head

Required of all civil engineering juniors.

An elementary course in engineering administration with primary attention given to the basic principles of engineering economy as applied to the economic analysis of the costs of construction and operation of various engineering works. Computer applications in cost analysis. In addition, the course covers engineering ethics as applied by practicing engineers.

Lecture: two hours.

CIVL 315 *Fluid Mechanics* Three Credit Hours

Prerequisite: CIVL 209 and CIVL 301

Required of all civil engineering juniors.

An introduction to fluid characteristics, properties, and the fundamentals of fluid statics, fluid dynamics, fluid flow, and fluid measurements. Hydraulics, a practical application of fluid mechanics involving the flow of water, investigates the properties of orifices, weirs, flumes, pipes, and open channels, including their engineering applications. Classroom assignments will include design problems and problem solving using computers.

Lecture: three hours.

CIVL 326 *Highway Engineering Laboratory* One Credit Hour

Corequisite: CIVL 306

Preparation of construction plans for a short highway, including reducing field notes; plotting; design of horizontal and vertical control; storm damage design; earthwork; determination and mass diagram calculations; asphalt testing including penetration, specific gravity, particle charge, viscosity, flash point, aggregate coating, and pavement mix design by Marshall method.

Laboratory: two hours.

CIVL 401 *Concrete Laboratory* One Credit Hour

Prerequisites: CIVL 307

Required of all civil engineering seniors.

Design, preparation, and testing of portland cement concrete mixes for a desired quality of concrete using both plain portland cement concrete and concretes containing the various commonly used admixtures; test specimens cured under controlled temperatures and moisture conditions; close attention given to the influence of the quality and grading of the aggregates and to other features

affecting the properties of the concrete ultimately forming a structure; study and discussion of specifications governing good construction practice in handling and placing aggregates and concrete; and the control inspection of same. Specific emphasis is placed on professional laboratory report format and presentation.

Laboratory: two hours.

CIVL 402 *Geotechnical Engineering Laboratory* One Credit Hour

Prerequisites: CIVL 409; CIVL 410 to be taken concurrently.

Required of all civil engineering seniors.

Classification and soil strength tests to predict stability of soil for use in earth dams, roads, and foundations. Specific gravity, combined mechanical analysis, Atterberg limits, permeability, compaction, unconfined compression, consolidation, triaxial, direct shear, relative density, and field tests to consist of field density tests and soil borings.

Laboratory: two hours.

CIVL 403 *Reinforced Concrete Design* Four Credit Hours

Prerequisite: CIVL 308

Required of all civil engineering seniors.

Design of reinforced concrete structures using strength design theory. Design of beams, columns, combined stress members, footings, and retaining walls. Introduction to prestressed concrete. Comprehensive analysis and design of a building frame and foundation system. Special attention is given to the use of current specifications for design and construction. The use of computer programs to facilitate analysis and design during the comprehensive problem is encouraged.

Lecture: four hours.

CIVL 405 *Structural Analysis II* Three Credit Hours

Prerequisite: CIVL 308

Corequisite: MATH 234

Required of all civil engineering seniors.

Theory of statically indeterminate structures, using methods of work, slope deflection, and moment distribution; an introduction to Matrix Methods; and multi-story building frame analysis using computer software.

Lecture: two hours; laboratory: two hours.

CIVL 406 *Steel Design* Three Credit Hours

Prerequisite: CIVL 405

Required of all civil engineering seniors.

Theory and design of steel structures, including elastic and plastic design concepts. Design of tension and compression members; beams; beam columns;

welded plate girders; trusses; mill buildings-composite design. Computer solutions are utilized for design shears, moments, and axial loads.

Lecture: two hours; laboratory: two hours.

CIVL 408 *Environmental Engineering* Three Credit Hours

Prerequisite: CIVL 315, CHEM 152

Required of all civil engineering seniors.

Introduction to concepts involving hydrology, groundwater, and stream flow with respect to controlled drainage and water supply. Methods of water treatment, wastewater treatment, and sludge handling, treatment and disposal will be introduced with emphasis on design concepts. Classroom assignments will include design and problems solution using computers.

Lecture: three hours.

CIVL 409 *Introduction to Geotechnical Engineering* Three Credit Hours

Prerequisites: CIVL 303, CIVL 315, and GEOL 303

This course introduces the student to the rudiments of theoretical soil mechanics, groundwater flow, stress in soils. Topics covered include formation of soils, phase relationships, classification, consolidation, and stress at depth. The shear strength of soils is considered last. Outside reading is encouraged to acquaint the student with geotechnical terminology and research.

Lecture: three hours.

CIVL 410 *Geotechnical Engineering II* Three Credit Hours

Prerequisite: CIVL 409

A first course in geotechnical design. Topics include compaction theory and practice, lateral earth pressure for cohesive and cohesionless soils, braced excavation, heave in cuts, and liquefaction. Shallow and deep foundation design theory and application. Bearing capacity factors. Slope stability analyses. Sub-surface investigation philosophy and techniques. The last lectures are devoted to special topics.

Lecture: three hours.

CIVL 418 *Fluid Mechanics Laboratory* One Credit Hour

Prerequisite: CIVL 315

Accomplishments of laboratory exercises and experiments to illustrate basic concepts of fluid mechanics and to validate empirical formulas used in hydraulic computations. Principal emphasis is on the phenomena associated with closed conduit and open channel flow of water, measurement of velocities, and flow rates and operational characteristics of pumps. A minimum of one experiment will involve the use of the computers to evaluate laboratory data.

Laboratory: two hours.

CIVL 419 *Environmental Engineering Laboratory* One Credit Hour

Prerequisite: CIVL 408

Accomplishment of chemical, physical, and microbiological determinations used in the examination of water and wastewater. Laboratory analysis to evaluate water quality will be performed, such as biochemical oxygen demand, suspended solids, pH, alkalinity, and others.

A minimum of one laboratory experiment will involve the use of the computer to evaluate laboratory data.

Laboratory: two hours.

CIVL 420 *Senior Research project* Two Credit Hours

Required of all civil engineering seniors.

Approved Electives

The following courses are offered on demand. They constitute part of a list of courses (including courses offered by other departments) which are approved by the head of the Department of Civil Engineering as satisfying the requirement that each civil engineering major complete a three-credit-hour technical elective.

CIVL 316 *Modeling of Civil Engineering Systems* Three Semester Hours

Prerequisite: MATH 234 or permission of department head

Modeling the behavior of a wide range of civil engineering systems using various analytical, computer-based, numerical and experimental techniques. Introducing the concepts of probabilistic modeling using Monte Carlo Analysis.

Lecture: three hours.

CIVL 411 *Engineering Management* Three Credit Hours

Prerequisite: Completion of all freshman, sophomore, and junior courses required for civil engineering majors, or approval of the department head.

Technique of engineering planning and management using the critical path method. Both computer and noncomputer approaches are used. Relationships between owners, A-E's and contractors are covered with emphasis on proper ethics and professional conduct by the engineer.

Lecture: three hours.

CIVL 421 *Subdivision Planning and Design* Three Credit Hours

Prerequisites: CIVL 102, CIVL 306, and CIVL 408; CIVL 408 may be taken concurrently.

The elements of planning a subdivision including an introduction to planning, zoning, subdivision requirements, and review procedures; site development including the integrated design of roadways, storm drainage collection/ retention/ detention systems, sanitary sewer collection and transportations systems (pumping stations and force mains), portable water systems, and construction cost estimates and specification; and economic analysis with individual student participation in preliminary development of single family, multi-family, and mobile

home projects on 20- to 25-acre tracts of land. Computer applications include use of spreadsheets and autocad.

Lecture: two hours; laboratory: two hours.

Civil Engineering Electives

Each Civil Engineering major must complete one of the following design courses in the spring of the senior year.

CIVL 422 *Comprehensive Project Design in Environmental Engineering* Three Credit Hours

Prerequisite: Senior standing in civil engineering, CIVL 408

Application to civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive engineering problem devoted to water resources/ environmental engineering.

Lecture: two hours; laboratory: two hours.

CIVL 423 *Comprehensive Project Design in Structural Engineering* Three Credit Hours

Prerequisite: Senior standing in civil engineering

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive Structural Engineering problem involving other aspects of civil engineering.

Lecture: two hours; laboratory: two hours.

CIVL 424 *Comprehensive Project Design in Geotechnical Engineering* Three Credit Hours

Prerequisite: Senior standing in civil engineering

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive Geotechnical engineering problem involving other aspects of civil engineering.

Lecture: two hours; laboratory: two hours.

CIVL 425 *Comprehensive Design Project in Engineering Practice* Three Credit Hours

Prerequisite: Senior standing in civil engineering

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive problem of general engineering practice involving many aspects of civil engineering. CIVL 421 Subdivision Planning and Design satisfies this course requirement.

Lecture: two hours; laboratory: two hours.

Department of Education

PROGRAMS LEADING TO TEACHER CERTIFICATION

Department Head & Director of Teacher Education: Templeton

Professors: Rhett, Templeton, Clees, Reilly, Elksnin

Associate Professors: Wallace, Ouzts, Brown, Siskind

Assistant Professors: Hewett, Berson

The Director of Teacher Education is the college official charged with the responsibility for the development, implementation, administration, and monitoring of all teacher education activities at The Citadel. His office assures that all Citadel programs meet the standards and criteria set forth by:

1. The South Carolina General Assembly;
2. The South Carolina Department of Education;
3. NCATE Accreditation Standards.

Teacher education at The Citadel is dedicated to the development of teachers for the public schools of the state and nation. Teacher education programs at The Citadel are in the area of secondary education (7-12) with teaching fields of Social Studies, History, Mathematics, Science, Biology, and English. In addition, a program for K-12 certification in the field of Physical Education is available.

The Education Entrance Examination is a test of basic skills in writing, reading, and mathematics. A student may be admitted for one year pending completion of the EEE. If a student fails the test, he is afforded a maximum of two additional times to pass the EEE. No student may continue longer than one year in a teacher education program without successful completion of this test.

As an entering freshman, a student may declare a major in Education or Physical Education (Teaching Track). At this level of admission to teacher education, the responsibility of the student is to complete the Education Entrance Examination and follow the appropriate curriculum. The student must be aware of the importance of maintaining a grade point ratio that will allow full admission to Teacher Education and the Internship in Teaching and ultimately graduating. Admission to Teacher Education is accomplished at the conclusion

of 60 semester hours of work. At that time the student must present a grade point ratio of 2.5 or 2.0 and SAT scores which places the student at or above the 50th percentile of all entering college students in South Carolina in the year of the student's matriculation.

Students who are already enrolled at The Citadel and are contemplating a change of major into Teacher Education should consider carefully the grade point ratio requirements in Teacher Education.

Admission to Senior Level Study

When the student has completed 60 hours of course work at The Citadel, he must apply for Admission to Senior Level Study. The student's application will be reviewed by the Committee on Admission and Retention. This review will include the following:

- a. An examination of Grade Point Ratio to determine if it is at least 2.5 or 2.0 and SAT scores at or above the 50th percentile of all entering freshmen in South Carolina at the time of the student's matriculation.
- b. Success in completed field experiences.
- c. Evaluations completed by instructors in completed courses in professional education.
- d. Evaluations completed by general education faculty.
- e. Advisor evaluations regarding suitability and interest in teacher education.
- f. A passing score on the EEE.

The Director of Teaching Education will be informed of the results of this review, and an official notice of admission or rejection will be sent to the student.

Admission to the Internship in Teaching (EDUC 499, PHED 499)

Students will be required to make a formal application for admission to the Internship in Teaching at least six weeks prior to the beginning of the term in which it will be performed. This application will be reviewed by the Committee on Admission and Retention.

Admission to the Internship in Teaching will be contingent on the following criteria:

1. Students must have been admitted to Senior Level Study
2. All professional education courses must be completed prior to the Internship in Teaching. A GPR of 2.5 must have been maintained in these courses.

3. A GPR of 2.0 must have been earned in the student's teaching field and a minimum of 20 hours in the field completed prior to taking the Internship in Teaching
4. All freshman and sophomore required courses must be completed prior to the Internship in Teaching.
5. Demonstrated success in previous field experiences.
6. Students must have an overall 2.5 GPR for admission to the Internship in Teaching and for graduation.

To be considered for certification, a National Teachers Examination Specialty Area test score and a NTE Core Battery test score in Professional Knowledge must be on file at The Citadel.

Teacher Preparation Programs Are Subject To Legislative Changes.

The following are objectives that guide the planning and practices of the teacher education faculty:

1. to enable the student to develop scholarship and mastery of a body of knowledge in the selected teaching specialty;
2. to enable the student to become aware of the emotional and psychological needs which he brings to the classroom, his feelings about being in the role of teacher, and the value orientation which he expresses in his behavior as a teacher;
3. to enable the student to develop skills in critical thinking, to make reasoned judgments about controversial issues, and to pursue a disciplined method of inquiry;
4. to enable the student to develop an awareness of the emotional and psychological needs of students, the differing reactions of pupils to their teachers, and the needs for differential responses to each student;
5. to enable the student to evaluate a variety of strategies for teaching and learning, to experience these strategies, and to develop from among them a personal style which fits his own objectives;
6. to enable the student to develop an awareness and understanding of the school in relation to the political and social system and to evaluate his objectives in the light of this relationship;
7. to create in the student an awareness of the school as the transmitter of the dominant values of the society and the implication of this in regard to community expectations about the role of the teacher.

The Citadel offers secondary certification in the Teaching Fields of English, History, Mathematics, Science, Biology, Physical Education, and Social Studies. Each program of study consists of Common Learnings, Professional Education

requirements, and Major Teaching Field requirements. Specific requirements for each Teaching Field are presented in the Courses of Study section of this catalogue.

Education Course Descriptions

EDUC 101 *Education in Modern Society* Three Credit Hours

Open to any interested student.

An orientation to teaching as a profession and to the teacher-training program. Study and discussion on school organization and teachers' roles and responsibilities; personal and professional guidance. Students will work weekly in a public school.

EDUC 202 *Educational Psychology* Three Credit Hours

Prerequisite: EDUC 101 or PHED 101

The course focuses on the application of psychological principles of teaching, psychological adjustment, and evaluation and management. Each student will work weekly in a public school to gain experience in a clinical setting.

EDUC 208 *Teaching Reading in the
Secondary School* Three Credit Hours

Prerequisites: EDUC 202

Designed to acquaint prospective middle-school and high-school teachers with reading practices geared to their students. The course will include a broad survey of the field of reading with attention given to some diagnostic procedures as well as the development of general reading programs for the middle school and senior high school levels. Different subject areas will be considered. Field experience in a public school is among course requirements.

EDUC 303 *Guidance* Three Credit Hours

An experimental study of the scope of contemporary guidance programs and concepts of career development. Special emphasis will be placed on having students choose and carry out a personal behavior change project and a vocational assessment.

EDUC 307 *Child Development* Three Credit Hours

Prerequisite: EDUC 202

Acquisition of understanding and appreciation of the mental, physical, social, and emotional aspects of development in childhood. Emphasis on techniques of motivation, principles of learning, learning styles, individual differences, and developmental problems.

EDUC 308 *Adolescent Development* Three Credit Hours

Prerequisite: EDUC 202

A survey of the basic principles and theories of human development with a focus on adolescents and their educational processes. The field experience is designed to interrelate college classroom learning with public school observations and activities.

EDUC 309 *The Contemporary American Family* Three Credit Hours

A frank and comprehensive analysis of the problems confronting the modern American family, with case studies treating the various phases of conflict with the family.

EDUC 311 *Social, Cultural, and Philosophical Issues in Education* Three Credit Hours

A survey of the history, philosophies, and theories underlying organized education and the significance of the dissemination of knowledge in a democracy. A field experience in the school community is required.

EDUC 315 *Introduction to Exceptional Children* Three Credit Hours

Designed to introduce students to children, adolescents, and young adults who have special educational needs which must be met in order for their school experiences to be successful. This course will take a non-categorical approach to special education. It will discuss these special students from the view of learning, physical, emotional, and behavioral problems. Primary teaching strategies will include practice activities and applications as well as class discussions.

EDUC 401 *Methods and Materials of Secondary, School Teaching* Three Credit Hours

Prerequisites: Admission to Senior Level Study

Study of the aims, methods, and materials employed in secondary school teaching; organization of subject matter; motivation and direction of learning; development of attitudes, appreciations, and ideals; classroom presentation of formal materials. The utilization of audio-visual hardware and software and the development and use of evaluative instruments in the total teaching-learning process will be emphasized.

EDUC 402 *Special Methods in Teaching* Three Credit Hours

Special techniques, theories, and materials in teaching in the area of specialization in secondary education, grades 7-12. A. English; B. Science; C. Social Studies; D. Mathematics.

EDUC 409 *Special Topics in Education* Three Credit Hours

Prerequisite: permission of the instructor and/or department head

A course designed for the intensive study of a current problem in the field of education at the undergraduate level.

EDUC 420 *Independent Study/Research* Three Credit Hours

Prerequisite: permission of the instructor and/or department head

This course will offer students an opportunity to acquire a deeper knowledge in the area of specialized interest related to the field of education. Prior to enrollment, each student must submit a plan of study to the department. A formal research paper will be required. Credit in Independent Study/Research is limited to 3 semester hours in a degree program.

EDUC 499 *Internship in Teaching* Twelve Credit Hours

Prerequisites: Refer to requirements for admission to internship.

A requirement for certification; observation and teaching in approved schools under approved supervising teachers; supervision by college instructor. Assignment only in major teaching field. This internship covers a minimum of twelve weeks. Each student provides his own transportation. Formal application for Internship in Teaching must be made not later than six weeks prior to the beginning of the semester or registration.

Fine Arts Course Descriptions

FNAR 205 *Music Appreciation* Three Credit Hours

A non-technical course to enhance the student's understanding and enjoyment of music by a twofold approach: first, to gain fundamental knowledge of style, content, and form of the more outstanding works of the great composers; and second, to study the evolution of musical art up to the present time; particular emphasis is placed upon the latter.

FNAR 206 *Art Appreciation* Three Credit Hours

The theory of abstract principles and material techniques as applied in the evaluation of works of art. The employment of such theory in an introductory study of famous art works.

FNAR 207 *Survey of Art History* Three Credit Hours

An introduction to the art of China, Egypt, the Mediterranean under Rome, Byzantium, and Gothic Europe. Art works from Africa, India, and Japan will also be considered. Major works will be discussed in relation to their cultural and philosophical context and content.

FNAR 209 *Music Theory I* Three Credit Hours

Study of basic musical materials; the structure and use of all diatonic chords, sight-singing and ear training.

FNAR 210 *Music Theory II* Three Credit Hours

Prerequisite: FNAR 209

Continuation of Music Theory I. Inversions of diatonic chords; the dominant seventh chord and its inversions; nonharmonic tones; introduction to modulation; sight-singing and ear training.

Library Science Course Descriptions

LSCI 305 *Children's Literature* Three Credit Hours

History of Children's books; their selection and evaluation, including modern books emphasizing winners of the Caldecott and Newbery Medals. Includes wide reading of all classes of children's literature and details which make children's books worthwhile. The course will be supplemented by discussions, reports, and special projects.

LSCI 425 *Adolescent Literature* Three Credit Hours

Open to juniors and seniors and designed for the secondary-school teacher. A study of literature for the adolescent, including materials of introducing the major literary genres to the secondary-school students.



Department of Electrical Engineering

Department Head: Askins

Professors: Askins, Dornetto

Associate Professor: Dunlop

Assistant Professor: Eppe

In 1941 the Board of Visitors authorized the establishment of a Department of Electrical Engineering at The Citadel. It is the purpose of the department to prepare the individual for professional work or for graduate study in the field of electrical engineering and to provide as many of the elements of a broad education as can be included in a program of professional study leading to the degree of Bachelor of Science in Electrical Engineering.

The electrical engineering program offered to the Corps of Cadets is accredited by the Accreditation Board for Engineering and Technology. The first B.S.E.E. degrees were awarded to the Class of 1948.

A student branch of the Institute of Electrical and Electronics Engineers was established in 1962 and is active at The Citadel; students of the junior and senior classes who meet the academic requirements may be elected to Tau Beta Pi, the national engineering honor society.

Convinced of the great value of practical experience, the department encourages its majors to obtain gainful employment in electrical engineering or a related field for at least one summer, preferably between the junior and senior years.

The electrical engineering student will normally select an area of professional emphasis—such as computer engineering, control systems, communication systems, electronics, or power systems.

For a listing of the course requirements for electrical engineering majors, see the Courses of Study section of this catalogue.

Electrical Engineering Course Descriptions

ELEC 104 *Engineering Fundamentals I* Two Credit Hours

Prerequisites: Required of electrical engineering freshmen.

An introduction to the engineering profession, branches and functions of engineering, professional ethics, and the role of engineers in society. Fundamen-

tals of engineering problem solving and the use of calculators and computers as tools to aid in problem solving.

Lecture: two hours.

ELEC 105 *Engineering Fundamentals II* Two Credit Hours

Prerequisites: ELEC 104, Required of electrical engineering freshmen.

Continuation of Engineering Fundamentals I to include the introduction of subject areas common to most engineering disciplines, such as, mechanics, energy, engineering economy, electrical theory, and material balance. Introduction to the design process to include preliminary design team exercises.

Lecture: two hours.

ELEC 201 and ELEC 202 *Electric Circuit Analysis I and II* Three Credit Hours

Prerequisite for ELEC 201: ELEC 104, ELEC 105, MATH 131; prerequisite or corequisite: PHYS 210/260, ELEC 206.

Prerequisites for ELEC 202: MATH 132 and a grade of C or better in ELEC 201; prerequisite or corequisite: ELEC 204, ELEC 206

Required of electrical engineering sophomores.

Basic electrical elements and sources; Ohm's and Kirchoff's Laws; techniques of DC circuit analysis; sinusoidal analysis and phasors; power and three-phase circuits; and transient response of simple circuits.

Lecture: three hours, two semesters.

ELEC 204 *Electrical Laboratory* One Credit Hour

Prerequisite or corequisite: ELEC 202 or ELEC 308, ELEC 206

Required of electrical engineering sophomores.

An introduction to the experimental method. Laboratory exercises are designed to supplement the material presented in ELEC 201 and ELEC 202.

Laboratory: two hours.

ELEC 206 *Computer Applications for Electrical Engineers* Two Credit Hours

Prerequisite or corequisite: ELEC 201 or ELEC 308

Required of electrical engineering sophomores.

The computer is presented as a tool for the solution of electrical engineering problems. High level language programming of computers; the use of application programs such as SPICE for the study of electrical circuits in the time and frequency domains; data manipulation, data plotting, and equation solving using application programs such as MATLAB.

Lecture: two hours

ELEC 301 *Linear Circuits Laboratory* One Credit Hour

Prerequisite or corequisite: ELEC 204 and ELEC 309

Required of electrical engineering juniors.

A laboratory course to accompany ELEC 309.

Laboratory: two hours.

ELEC 302 *Electrical Machinery Laboratory* One Credit Hour

Prerequisite or corequisite: ELEC 316

Required of electrical engineering juniors.

A laboratory course to accompany ELEC 316.

Laboratory: two hours.

ELEC 305 *Digital Systems Fundamentals* Three Credit Hours

Required of computer science majors.

Boolean algebra; digital coding; basic logic circuits; design of combinational and sequential circuits; and memory devices.

Lecture: three hours.

ELEC 306 *Electronics I* Three Credit Hours

Prerequisite: ELEC 204, ELEC 206 and a grade of C or better in ELEC 202; prerequisite or corequisite: ELEC 313

Required of electrical engineering juniors.

Characteristics of solid-state devices; theory and design of low-frequency amplifiers; transistor biasing and stabilization; design of multi-stage and feedback amplifiers; and digital circuits.

Lecture: three hours.

ELEC 307 *Nuclear Engineering* Three Credit Hours

Prerequisite: PHYS 212/262

An introduction to the theory and application of nuclear energy. Topics include fission and the chain reaction; nuclear fuels; nuclear reactor principles, concepts, examples, construction, operation, and ecological impact; heat transfer and fluid flow; radiation hazards and shielding; nuclear propulsion; and controlled fusion.

Lecture: three hours.

ELEC 308 *Elements of Electrical Engineering* Three Credit Hours

Prerequisite: MATH 132

Required of civil engineering juniors.

Fundamental electrical concepts and units; basic laws of electrical circuits; equivalent circuits; DC and steady-state AC circuit analysis; and effective cur-

rent, average power, and three-phase power.

Lecture: three hours.

ELEC 309 *Linear Circuit Analysis* Three Credit Hours

Prerequisites: ELEC 204, ELEC 206, MATH 234, and a grade of C or better in ELEC 202; prerequisite or corequisite: ELEC 301 and MATH 335

Required of electrical engineering juniors.

The study of continuous and discrete systems utilizing Laplace and z-transform theory.

Lecture: three hours.

ELEC 311 *Digital Logic and Circuits* Three Credit Hours

Prerequisite: ELEC 204, ELEC 206, and a grade of C or better in ELEC 202.

Required of electrical engineering juniors.

Introduction to Boolean algebra; digital data coding; digital arithmetic; design of combinational and sequential circuits; design, construction and evaluation of digital circuits using industry-standard digital integrated circuits.

Lecture: three hours.

ELEC 312 *Systems I* Three Credit Hours

Prerequisite: ELEC 309, ELEC 301

Required of all electrical engineering juniors.

An introduction to feedback control systems; system representation; stability; root-locus and frequency response; and compensation.

Lecture: three hours.

ELEC 313 *Electronics Laboratory* One Credit Hour

Prerequisite: ELEC 204, ELEC 206, and a grade of C or better in ELEC 202.

Corequisite: ELEC 306

Required of electrical engineering juniors.

Experimental studies coordinated with the subjects introduced in ELEC 306.

Laboratory: two hours.

ELEC 316 *Electromechanical Energy Conversion* Three Credit Hours

Prerequisite: ELEC 309; prerequisite or corequisite: ELEC 302

Required of electrical engineering juniors.

Analysis of transformers; fundamentals of electromechanical energy conversion; and study of DC, induction, and synchronous machines.

Lecture: three hours.

ELEC 318 *Electromagnetic Fields* Three Credit Hours

Prerequisites: ELEC 204, ELEC 206, PHYS 212/262, MATH 234, MATH 335, and a grade of C or better in ELEC 202.

Required of electrical engineering juniors.

Static and magnetic fields; experimental laws and their relation to Maxwell's equations; Laplace and Poisson's equations; boundary value problems; and time varying fields, plane waves, and transmission line phenomena.

Lecture: three hours.

ELEC 330 *Digital Systems Engineering* Three Credit Hours

Prerequisites: ELEC 311

Prerequisite: ELEC 313 and ELEC 306

Required of all electrical engineering juniors.

Characteristics, specifications, and design of digital systems; analysis and synthesis of sequential circuits; microprocessor interfacing. Design project required.

Lecture: three hours.

ELEC 401 *Electronics II* Three Credit Hours

Prerequisite: ELEC 306 and ELEC 313

Ideal and non-ideal operational amplifiers; active filters; comparators; and characteristics and applications of modern linear and digital integrated circuits.

Lecture: three hours.

ELEC 403 *Electric Power Systems* Three Credit Hours

Prerequisite: ELEC 206, ELEC 316, and ELEC 318

A study of electrical power generation, transmission, and distribution; load flow, faults, and system stability; and system economics. Design project required.

Lecture: three hours.

ELEC 404 *Quality Control and Reliability* Three Credit Hours

Prerequisites: MATH 335 and ELEC 306, or consent of instructor.

Basic principles, procedures, and engineering management of industrial quality control; inspection by attributes and by variables; rectifying inspection; control charts; and design of experiments. Case studies of effectiveness and reliability of electrical systems.

Lecture: three hours.

ELEC 405 *Electrical Measurements* Two Credit Hours

Prerequisite: Any two 300-level electrical engineering laboratory courses; prerequisite or corequisite: ELEC 415.

Precision methods of measuring electromotive force, resistance, current, inductance, capacitance, and dissipation factor; analysis of instrumentation circuits; design of experiments; analysis of experimental data.

Lecture: two hours.

ELEC 407 *Systems II* Three Credit Hours

Prerequisite: ELEC 312

A continuation of Systems I with primary emphasis on digital control systems. Topics include: state-variable analysis, simulation techniques, controllability, state-variable feedback, observability, and state estimator design.

Lecture: three hours.

ELEC 413 *Advanced Topics in
Electrical Engineering* Three Credit Hours

Advanced topics in electrical engineering. Offered occasionally when the special interests of students and faculty coincide. The syllabus must be approved by the Electrical Engineering Faculty. This course may be taken only once for credit.

Lecture: three hours.

ELEC 414 *System Simulation* Three Credit Hours

Prerequisites: ELEC 312

An introduction to system concepts; mathematical models of systems; and simulation methods applied to a broad range of systems. Design project required.

Lecture: three hours.

ELEC 415 *Electrical Measurements Laboratory* One Credit Hour

Prerequisite or corequisite: ELEC 405

A laboratory course to complement ELEC 405.

Laboratory: two hours.

ELEC 416 *Communications Engineering* Three Credit Hours

Prerequisites: ELEC 330, ELEC 306, ELEC 312, and ELEC 318

Principles of amplitude, frequency, and pulse modulation; signal flow and processing in communications systems; and analog and digital communication systems.

Lecture: three hours.

ELEC 421 *Design I* Three Credit Hours

Prerequisite: ELEC 302, ELEC 306, ELEC 312, ELEC 316, ELEC 330, and ELEC 318

Required of electrical engineering seniors.

A study of the engineering design process; establishment of objectives and evaluation criteria, analysis, synthesis, construction, testing, and evaluation. Exercises in design, documentation, and reporting. Development of a proposal for a major design project for ELEC 422, Design II.

Lecture: one hour; laboratory: four hours.

ELEC 422 *Design II*

Three Credit Hours

Prerequisite: ELEC 421

Required of electrical engineering seniors.

Implementation, documentation, and reporting on a major design project. Normally to be accomplished by students working in small groups. Each student will make a written and oral presentation on his contributions to the project.

Lecture: one hour; laboratory: four hours.

ELEC 423 *Digital Signal Processing*

Three Credit Hours

Prerequisite: ELEC 312

Introduction to the characteristics, design, and applications of discrete time systems. Continuous time and discrete time Fourier Transforms. FIR and IIR Systems. Design of FIR and IIR filters. Design of Chebyshev and Butterworth filters. Introduction to the TMS320C25 Digital Signal Processor.

Lecture: three hours.

ELEC 424 *Solid-State Devices*

Three Credit Hours

Prerequisites: MATH 335, ELEC 306, and ELEC 318

Basic principles governing the operation of solid-state devices are developed from fundamental concepts. P-N junction theory is developed and applied to the analysis of devices such as bipolar transistors, solar cells, detectors, and photo devices. The theory of field-effect devices is developed.

Lecture: three hours.

ELEC 426 *Antennas and Propagation*

Three Credit Hours

Prerequisites: ELEC 318 and MATH 335

Transmission, radiation, and propagation of electromagnetic waves by means of transmission lines, waveguides, optical fibers, and antennas. Design project required.

Lecture: three hours.

ELEC 428 *Digital Systems Design*

Three Credit Hours

Prerequisite: ELEC 305

Required of computer science majors.

Structure of digital systems; timing and control; input-output; digital data communications; microprocessors.

Lecture: three hours.



Department of English

Department Head: White

Professors: Redd, Rembert, Tucker, White, Leon, Rhodes, Edwards, Allen, Leonard, Shields

Associate Professors: Holbein, Mathis, O'Neil, Mailloux, Lally, Hutchisson

Assistant Professor: Thompson

Courses in English composition and literature are required for all freshmen and sophomores, regardless of their major fields of study.

Advanced standing with credits may be given to students who complete the College Entrance Board Advancement Placement Test in English with a grade of three or better, or who make a satisfactory score on an English Department placement test.

The English major is designed for the student seeking a broad education suitable for a career in law, business, the armed forces, teaching, dentistry, medicine, or theology. In addition to a strong foundation in literature, the department offers a generous selection of elective courses that allows either a truly broad liberal arts education or an opportunity to take a number of courses within a secondary field.

The program within the English Department provides both depth and flexibility. Course offerings range from Anglo-Saxon literature to twentieth-century American literature. The interested student may take courses in creative writing and in journalism. A system of tutorials and seminars allows both small classes and independent study.

By being allowed to take as many as nine electives outside the department during his sophomore, junior and senior years, the student has ample latitude to follow other interests. During his freshman and sophomore years, he may take a number of courses ensuring a background in a modern language, the sciences, mathematics, and the social sciences.

In his freshman year the English major must elect one of the natural sciences: biology, chemistry, or physics. Also, he must elect a modern language and complete two years of study. The entering freshman with two or more units in a modern language may complete the language requirement in one year by starting at the 200 level.

The student majoring in English is required to take ENGL 213 and ENGL 214 (Survey of English Literature), PHIL 201 (Introduction to Philosophy), and one of the following: ENGL 211 (Mythology) or ENGL 212 (The Bible as Literature). During the junior and senior years he must take a minimum of three courses from Group A, Literature Before 1800, of which one course must be ENGL 317 or ENGL 318 (Shakespeare), a second course must be ENGL 301 (Chaucer) or ENGL 319 (Milton), and a third course must be an elective from Group A other than ENGL 317, ENGL 318, ENGL 301 or ENGL 319. He must take three courses in Group B, Literature after 1800; two of these must be in American literature (ENGL 341, ENGL 342, ENGL 343, or ENGL 344) and one must be in British literature of this group. In Group C, Criticism, Language, and Writing, he must take two courses but may not use more than one course in Writing to fulfill the requirement. The student shall pursue his interests by selecting four more courses from the three groups. (Courses numbered in the 200 series, e.g., ENGL 205, ENGL 211, etc., cannot be used to fulfill this four-course elective requirement).

Unless otherwise indicated in the course descriptions, all advanced English courses are open to all students who have completed their sophomore English requirements (ENGL 201 and ENGL 202, or ENGL 213 and ENGL 214) or who have the approval of the department head.

For a tabulation of the requirements for the English major, see the Courses of Study section of this catalogue.

The courses in philosophy are included in the English curriculum under subject code PHIL.

English Course Descriptions

ENGL 101 and 102	<i>Composition and Literature</i>	Three Credit Hours Each Semester
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Required of all freshmen.

The development of the basic skills of writing and reading and of literature evaluations through the study of literary types. ENGL 101: reading and evaluation of essays; writing of paragraphs and themes. ENGL 102: introduction to non-British fiction, poetry, and drama; writing of themes. *ENGL 101 with a grade of "C" or better is a prerequisite for all other English courses.*

ENGL 201 and ENGL 202	<i>Major British Writers</i>	Three Credit Hours Each Semester
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Prerequisites: ENGL 101 and ENGL 102

Required of all sophomores other than English majors.

Study in depth of major writers in British literature from the medieval period to the present. ENGL 201: Beowulf, Chaucer, Shakespeare, Milton, Pope, and Swift. ENGL 202: Wordsworth, Keats, Tennyson, Browning, Hardy, Yeats, and Eliot. Several themes assigned on the literature studied.

ENGL 205 *Introduction to Public Speaking* Three Credit Hours

Prerequisite: ENGL 101

Open to freshmen who have completed ENGL 101 and all upperclassmen.

The general principles of speech composition and speech presentation; practice in expository speaking.

ENGL 211 *Mythology* Three Credit Hours

Open to sophomores, juniors, and seniors.

A study of mythology with special emphasis on Greco-Roman, Northern European and Eastern myths. A discussion of the leading theories concerning the origins, development, and significance of myths together with the allusive and allegorical use of myth in later literature and art.

ENGL 212 *The Bible as Literature* Three Credit Hours

Open to sophomores, juniors, and seniors.

A study of selected portions of the Old and New Testaments as literary masterpieces and cultural monuments, with some attention to the major systems of interpretation.

ENGL 213 and ENGL 214 *Survey of* Three Credit Hours
 English Literature Each Semester

Prerequisites: Satisfactory completion of ENGL 101 and ENGL 102 or their equivalent. Students who have received course credit for ENGL 201 and ENGL 202 cannot receive additional credit for ENGL 213 and ENGL 214.

Required of all English majors.

First semester: a study of English literature from its beginnings to the end of the eighteenth century. Second semester: a study of English literature from the end of the eighteenth century to the present. Both courses will include some consideration of historical backgrounds and literary movements.

ENGL 217 *Introduction to Journalism* Three Credit Hours

Prerequisite: ENGL 102

An introduction to print journalism with emphasis on writing news and feature articles.

ENGL 220 *Introduction to Film* Three Credit Hours

Prerequisite: ENGL 102

An introduction to the aesthetics, history, techniques, and criticism of cinematic art.

GROUP A
Literature Before 1800

English majors must complete a minimum of 9 hours in this area: 3 in Shakespeare (ENGL 317 or ENGL 318), 3 hours in Chaucer (ENGL 301) or Milton (ENGL 319), and 3 hours in one additional course of this group other than ENGL 317, ENGL 318, ENGL 301, and ENGL 319.

ENGL 300	<i>The Literature of Medieval England, exclusive of Chaucer</i>	Three Credit Hours
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Open to juniors and seniors.

A survey of the most important literature composed during the Old English and Middle English periods, some in the original languages, some in translation.

ENGL 301 *Chaucer* Three Credit Hours

Open to juniors and seniors.

An introduction to Chaucer's language, art, and cultural milieu through readings of *The Canterbury Tales*, *Troilus and Criseyde*, and some of the shorter poems.

ENGL 317 and ENGL 318	<i>Shakespeare</i>	Three Credit Hours Each Semester
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Open to juniors and seniors.

A study of representative plays—comedies and histories (ENGL 317) and tragedies (ENGL 318)—to give the student insight into the greatness of Shakespeare as dramatist and poet.

ENGL 319 *Milton* Three Credit Hours

Open to juniors and seniors.

A study of *Paradise Lost*, of *Samson Agonistes*, and of representative prose works, with special attention to their philosophical content.

ENGL 320	<i>Non-dramatic Literature of Sixteenth Century England</i>	Three Credit Hours
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Open to juniors and seniors.

A study of the principal writers of the period, with particular emphasis on the prominent aspects of the Renaissance spirit.

ENGL 321	<i>Seventeenth Century Poetry and Prose, exclusive of Milton</i>	Three Credit Hours
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Open to juniors and seniors.

A study of representative prose prior to the Restoration, of representative poetry of Ben Jonson and his "sons," and of John Donne and the metaphysical poets.

- ENGL 322 *Survey of English Drama to 1642,
exclusive of Shakespeare* Three Credit Hours

Open to juniors and seniors.

A detailed study of representative plays, exclusive of Shakespeare's, from the medieval beginnings of English drama to the closing of the theatres in 1642.

- ENGL 323 *Restoration and Eighteenth Century
English Literature, 1660-1744* Three Credit Hours

Open to juniors and seniors.

A study of the new spirit of English prose and poetry which came with the Restoration. Some emphasis will be given to the philosophical, religious, political, and social backgrounds. Major figures: Dryden, Swift, and Pope, with some attention to the lesser writers of the period.

- ENGL 324 *The Age of Johnson, 1744-1798* Three Credit Hours

Open to juniors and seniors.

A study of the decline of Neoclassicism, the rise of prose, and the movement toward Romanticism.

GROUP B

Literature After 1800

English majors must complete a minimum of 9 hours in this area: 6 hours in American literature (ENGL 341, ENGL 342, ENGL 343, or ENGL 344) and 3 hours in a British literature course of this group.

- ENGL 325 *The Romantic Movement* Three Credit Hours

Open to juniors and seniors.

A study of the chief features which culminated in the Romanticism of the nineteenth century, with special emphasis on the five major poets: Wordsworth, Coleridge, Byron, Shelley, and Keats.

- ENGL 326 *Victorian Poetry and Prose* Three Credit Hours

Open to juniors and seniors.

A study of the period from 1830 to 1900, showing the effects of the Industrial and Scientific Revolutions on traditional attitudes toward art and life through the works of the major writers of the period, with emphasis upon the poetry of Tennyson, Browning, and Swinburne and upon the prose of Carlyle, Arnold, Huxley, and Pater.

- ENGL 329 *The Development of the
English Novel to 1900* Three Credit Hours

Open to juniors and seniors.

Lectures on narrative forms which preceded the novel and on lives and works of major eighteenth and nineteenth century novelists; reading and discussion of selected novels.

ENGL 330 *The American Novel* Three Credit Hours
Open to juniors and seniors.

A course in the reading and critical analysis of selected American novels including from time to time novels by Cooper, Hawthorne, Melville, Twain, James, Hemingway, and Faulkner, among others.

ENGL 331 *Modern Drama* Three Credit Hours
Open to juniors and seniors.

A study of representative plays to show the development of late nineteenth century English and twentieth century English and American drama under the influence of Ibsen, Strindberg, Pirandello, Maeterlinck, and other continental playwrights. Major figures include Shaw, O'Neil, Miller, and Williams.

ENGL 332 *Modern British Novel from 1900* Three Credit Hours
Open to juniors and seniors.

A course in the reading and critical analysis of selected British novels by writers like Conrad, Joyce, Lawrence, Forster, and Waugh.

ENGL 333 *Southern Literature to 1900* Three Credit Hours
Open to juniors and seniors.

A survey of the literary achievement of Southern writers from 1710 to 1900.

ENGL 334 *Twentieth Century Southern Literature* Three Credit Hours
Open to juniors and seniors.

A study of the most important Southern authors of the twentieth century, from Ellen Glasgow to the present day, with emphasis on significant regional topics such as the Fugitive and Agrarian Movements, the development of the Southern Tradition, and the Southern Gothic School.

ENGL 335 *Contemporary Literature* Three Credit Hours
Open to juniors and seniors.

A study of selected writers whose works are representative of dominant ideas, literary techniques, and cultural patterns of the contemporary period.

ENGL 336 *Modern British Poetry* Three Credit Hours
Open to juniors and seniors.

A study of British poets from the 1890's until World War II with an emphasis on the work of Hopkins, Hardy, the poets of the First World War, Yeats, Thomas, and Auden.

ENGL 341 *Early American Literature* Three Credit Hours
Open to juniors and seniors.

A study of American writings from the time of the first settlement through the colonial period, ending with early nationalism.

ENGL 342 *American Romantic Literature* Three Credit Hours
Open to juniors and seniors.

A study of American authors from the period of the establishment of a national literature. The course includes such writers as Hawthorne, Poe, Melville, Emerson, Thoreau, and Whitman.

ENGL 343 *Literature of American Realism* Three Credit Hours
Open to juniors and seniors.

A study of American literature following the Civil War and up to the twentieth century. The course includes local colorists and such writers as Dickinson, Twain, James, and Crane.

ENGL 344 *American Twentieth Century Literature* Three Credit Hours
Open to juniors and seniors.

A study of representative selection of modern and contemporary American writers such as Robinson, Frost, Stevens, Fitzgerald, Hemingway, Faulkner, and Eliot.

ENGL 345 *Black Literature* Three Credit Hours
Open to juniors and seniors.

A survey of Black American poetry, fiction, and drama, featuring works from the Harlem Renaissance, the Depression, and post-war and contemporary periods.

GROUP C

Criticism, Language, and Writing

English majors must complete 6 hours in this area but may not use more than one course in writing to fulfill the requirement.

ENGL 405 and ENGL 406 *A Survey of World Literature* Three Credit Hours
Each Semester

Open to juniors and seniors.

ENGL 405 Masterpieces of world literature in translation from the *Rig Veda* to Dante with special attention to the philosophical content and the development of literary forms.

ENGL 406 Masterpieces of world literature in translation from Boccaccio to the present time with special attention to the philosophical content and the development of literary forms.

ENGL 407 *Principles of Literary Criticism* Three Credit Hours

Open to senior English majors and to any student who has completed four courses in English above the sophomore level, or approval of the department head.

A study of literary criticism from the classical tradition to the modern period.

ENGL 411 *Writing in the Professions* Three Credit Hours

Prerequisites: ENGL 101 and ENGL 102

The course emphasizes the application of the principles of effective writing and of vocabulary development to a given profession such as law, engineering, or medicine.

ENGL 413 *Effective Writing* Three Credit Hours

The study and practice of advanced writing techniques for those who wish to improve their prose styles. This course fulfills state teacher certification requirements for advanced composition.

ENGL 414 *Modern English Grammar* Three Credit Hours

Open to juniors and seniors and designed for the secondary-school teacher.

An analysis of the structure of Modern English, its phonology, morphology, and syntax, with explorations into the conceptual basis of language and the way in which grammar generates meaning.

ENGL 415 *The English Language* Three Credit Hours

Open to sophomores with approval of department head, and to juniors and seniors.

A survey of the English language beginning with the Indo-European backgrounds, tracing the development of Old, Middle, and Modern English through major phonological, morphological, and syntactic changes with attention to dialectal variations and semantic changes.

ENGL 421 *Senior Tutorial* Three Credit Hours

Prerequisite: approval of the department head.

Open to senior English majors.

A tutorial course individually designed to meet the needs or special interests of one or a few students. Assignments, tutorial sessions, tests and papers will be assigned by the professor in consultation with individual students. This course is reserved for students who have attained a 3.0 GPR or better.

ENGL 423 and ENGL 424 *Senior Seminar* Three Credit Hours

Each Semester

Open to senior English majors.

A seminar on an individual author, topic, or problem, as suggested by members of the faculty or by groups of English majors and subject to the approval of the department head in consultation with the instructor.

ENGL 425 *Adolescent Literature* Three Credit Hours

Open to juniors and seniors and designed for the secondary-school teacher.

A study of literature for the adolescent, including methods of introducing the major literary genres to the secondary-school student.

ENGL 426 *Creative Writing: Fiction* Three Credit Hours
Open to juniors and seniors.

Written permission of instructor required.

A study of the craft of fiction and its most important elements. Students will consider appropriate models and, in a workshop setting, develop their own skills. Requirements include completion of a substantial piece of fiction.

ENGL 427 *Creative Writing: Poetry* Three Credit Hours
Open to juniors and seniors.

Written permission of instructor required.

A study of the traditions and techniques of poetry, including the examination of appropriate models and theories, and, in a workshop setting, directed practice in writing poetry.

ENGL 499 *Practicum in Professional Writing* Three Credit Hours
Prerequisite: Permission of department head and supervising professor.

Open to seniors.

Students who have demonstrated their ability to write effectively work several hours per week in the Charleston community under the supervision of a professional in law, religion, health, engineering, communications, or other field. Each student must provide his own transportation.

Philosophy Course Descriptions

PHIL 201 *Introduction to Philosophy* Three Credit Hours

An inquiry into the nature of philosophic thinking, especially with regard to the problem of knowledge and the nature of reality. Primary emphasis falls upon the classical origins of Western philosophy.

PHIL 202 *Reasoning and Critical Thinking (Logic)* Three Credit Hours

A study of the principles and methods which distinguish valid from invalid arguments. After a brief examination of what an argument is, the concepts of validity and invalidity are introduced, and a systematic study of the principles governing the application of these concepts to arguments is undertaken. An extensive treatment of traditional Aristotelian logic (the syllogism, rules of validity, immediate inference, etc.) is supplemented by an introduction to principles of modern symbolic logic.

PHIL 301 *Ethics* Three Credit Hours

A study of the nature of morality and moral reasoning through critical analyses of the writings of classical and contemporary thinkers on this subject. Problems regarding the role of reason in human conduct will be examined in detail, with emphasis upon the nature of the good life, happiness, moral obligation and duty, right and wrong, and the nature of moral language.

PHIL 302 *Philosophy of Religion* Three Credit Hours

Prerequisite: three semester hours of philosophy.

An analysis of what religion is, the role it plays in human life, and how it differs from such other areas of life as ethics and science. The arguments for and against the existence of God are examined, as is the appeal to religious experience (e.g., mysticism). Criticism of religion, e.g., that of Freud and Marx, is considered, as are the roles of faith and revelation and the questions of evil and immortality.

PHIL 307 *Ancient Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

A study of the foundations of Western thought: the pre-Socratic Greek thinkers; Socrates, Plato, Aristotle, and their schools with emphasis upon the major writings of Plato and Aristotle.

PHIL 308 *Medieval Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

A critical survey of neo-Platonism and subsequent scholastic philosophy, with emphasis upon the thought of Plotinus, St. Augustine, Erigena, St. Anselm, St. Bonaventure, St. Thomas Aquinas, and Scotus.

PHIL 309 *Seventeenth and Eighteenth
Century Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

A study of the development and results in of British empiricism and continental rationalism in the seventeenth and eighteenth centuries, culminating in the critical philosophy of Kant. The chief and most influential works of Locke, Berkeley, Hume, Descartes, Leibniz, and Spinoza will be read in an attempt to clarify and evaluate the problem of the conflict of reason and experience.

PHIL 407 *Nineteenth Century Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

Romanticism and evolution, reason and revolution: Hegel and the rise of social theory. A study of Hegel's enigmatic identification of the real and the rational, the dialectic which articulates it, and its subsequent interpretation and criticism from Marx through Nietzsche. Students will be encouraged to read and write on other thinkers of the period, including poets, historians, and scientists.

PHIL 408 *Contemporary Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

A study of the major philosophical movements and thinkers that shape our lives in the twentieth century. Existentialism, phenomenology, process philosophy, logical positivism, analytic philosophy, Sartre, Kierkegaard, Camus, Marcel, Husserl, Heidegger, Wittgenstein, Ayer, Russell, Moore, Ryle, Austin, Whitehead.

PHIL 409 *Seminar in Philosophical Topics*

Three Credit Hours

Prerequisites: at least junior standing and consent of the instructor.

A study of selected topics from various fields of philosophy (e.g., philosophy of history, philosophy of science, aesthetics, philosophy of law) with special emphasis upon their contemporary relevance and interdisciplinary character. Content in any given semester to be determined by student needs.

PHIL 410 *Man in Crisis: The Problems of Good and Evil*

Three Credit Hours

Prerequisites: at least junior standing and (due to limited enrollment) consent of the instructor.

A critical look at a variety of crises facing modern humanity and how they impact upon society; their trends, right/wrong, good/evil. Consideration of crises in relationship to theology, duty, freedom, honor, justice, law, and happiness. Some lecture, considerable discussion, and classroom presentations.



Department of Health and Physical Education

Department Head: Wilson

Professors: Ezell, Smyth

Associate Professors: Styles, Wilson, Carter, Templeton

The purpose of the Department of Health and Physical Education is to provide experiences which will lead to skills, knowledge, and attitudes within the domains of human movement and healthful living, which contribute to an improved quality of life.

Required Physical Education Program

The primary objective of the RPED program is to provide basic instruction in adult physical fitness and recreational sports which will be of both immediate and lasting value for each cadet.

All cadets are required to complete four semesters of RPED.

All cadets must take the 250 and 251 sequence.

RPED 250 *Contemporary Health Foundations* Two Credit Hours

The purpose of this course is to provide basic information in the areas of personal health, drug and substance use and abuse, nutrition, and human sexuality. The course is designed to provide the knowledge base for health maintenance and the development of proper health values.

Lecture: two hours.

RPED 251 *Foundations of Fitness and Exercise* Two Credit Hours

This course is designed to teach the student what physical fitness is, why one should be fit, how one can evaluate fitness, and what can be done to develop, maintain, and improve one's level of fitness. Basic exercise physiology, body mechanics, stress management, and exercise programs and prescriptions are taught.

Lecture: two hours.

All cadets must successfully complete two activity (100 level) RPED courses. Cadets may elect any two activities from the following courses after demonstrating minimal swimming proficiency. If a cadet does not pass the test of minimal swimming proficiency he must enroll in RPED 103, Beginning Swimming.

RPED 103 *Beginning Swimming*

A beginning swimming course designed for adults who are classified as non-swimmers or poor swimmers. Required of all cadets who do not pass the test of minimal swimming ability administered by the Department of Health and Physical Education.

RPED 105 *Intermediate Swimming and Emergency Water Safety*

Prerequisite: Swimming proficiency

A course consisting of instruction in the five basic swimming strokes, self-rescue, basic lifesaving techniques, and emergency water safety.

RPED 110 *Individualized Physical Education*

A course providing an individualized approach to health related aspects of fitness, including but not limited to, cardiovascular and muscular endurance, strength, flexibility, and body composition.

RPED 111 *Beginning Racquetball*

A course designed to provide instruction in the rules, skills, and strategies of playing racquetball.

RPED 113 *First Aid and CPR (ARC)*

A certification course of the American Red Cross for standard first aid and cardiopulmonary resuscitation.

RPED 114 *Lifeguarding (ARC)*

Prerequisites: RPED 105 and 113 or current certification in CPR and First Aid and documented swimming proficiency.

A certification course designed to teach the student the skills and knowledge required to properly assume the responsibilities of a lifeguard. Completion of this course may result in ARC lifeguard certification.

RPED 115 *Water Safety Instruction (ARC)*

Prerequisites: RPED 105, RPED 114, or current ARC lifeguarding training certificate.

An instructor's course which may result in ARC certification for all levels of

swimming instruction.

RPED 116 *Lifeguard Training Instructor (ARC)*

Prerequisites: RPED 114 or a current ARC lifeguard training certificate.

An instructor's course which may result in ARC certification for water safety and lifeguarding instruction.

RPED 122 *Archery*

A course which provides instruction in the basic knowledge and skills of target archery.

RPED 123 *Fencing*

A course which teaches basic knowledge, skill, and strategy of competitive foil fencing.

RPED 124 *Beginning Golf*

A course which teaches grip, stance, and swing development, as well as knowledge of rules and strategy of recreational and competitive golf.

RPED 125 *Handball*

An introduction to the rules, skills, and strategies required for singles, doubles, and "cut-throat" (three-man) play.

RPED 126 *Judo*

A comprehensive coverage of the history, dojo etiquette, ukemi (break-fall), nagewaza (throwing), and ne-waza (grappling) techniques.

RPED 127 *Skin and Scuba Diving*

Prerequisite: Swimming proficiency

Techniques of using mask, snorkel, fins, and scuba equipment are taught. Materials are presented to acquaint the student with information related to underwater physics and physiology.

RPED 129 *Beginning Tennis*

A course which emphasizes grip, stance, footwork, and basic movement patterns in the execution of serve and ground strokes and stresses knowledge of rules and etiquette.

RPED 130 *Weight Training*

A course which stresses proper lifting techniques as well as knowledge con-

cerning the relationship between weight training and various sports programs.

RPED 134 *Jogging*

A course which presents jogging as a means of developing and maintaining a satisfactory level of cardiovascular fitness.

RPED 135 *Intermediate Tennis*

Prerequisite: RPED 129 or equivalent.

This course requires minimal skills (serve, forehand, and backhand ground strokes) and presents more advanced skills such as lob, smash, and net play in addition to advanced strategy in singles and doubles play.

RPED 136 *Sailing and Canoeing*

Prerequisite: Swimming proficiency

A course which includes basic knowledge and skill concerning small sailing craft and canoes.

RPED 140 *Sigma Delta Psi*

A course designed to prepare the student for thirteen sports/fitness skill tests required for membership in this national athletic fraternity.

RPED 141 *Modern Bicycling*

A study of modern multispeed bicycling, emphasizing the elements of care, maintenance, and safety and the techniques of physical preparation for racing and touring. *Students must have their own bicycles.*

RPED 142 *Orienteering*

A presentation of the skills for cross-country running with map and compass.

RPED 143 *Water Skiing*

A progressive presentation of water skiing skills from land drills through proper power boat handling to basic, intermediate, and advanced techniques with the double and single (slalom) equipment.

RPED 144 *Beginning Snow Skiing*

A comprehensive course which includes pre-skiing conditioning, dressing for the elements, equipment, chairlift and tow-rope safety, and skiing under various conditions.

RPED 145 *Intermediate Snow Skiing*

Prerequisite: RPED 144 or satisfactory performance of skiing fundamentals.

An intermediate course which includes the application of the techniques involved in edge control and carving which will develop the individual's interest in moguls, racing, free style, ballet and aerials.

RPED 147 *Beginning Horseback Riding*

A course designed to instruct techniques and equipment required to handle, halter, saddle, bridle, mount, ride, maneuver, dismount, and groom a horse. Walk, trot, figure-8, lunge, and canter skills are included.*

**Additional laboratory fees are charged to offset the costs of the special expenses involved with this course.*

RPED 149 *TaeKwon-Do*

An introductory course in the Martial Art of TaeKwon-Do. Knowledge, history, basic techniques, fundamental movements, required behaviors, discipline, and respect are emphasized.

THE HEALTH AND PHYSICAL EDUCATION MAJOR

The purpose of the professional preparation program is to prepare the major for selected involvement within the broad field of health and physical education while maintaining reasonable flexibility for adaptation beyond the specialty area. This is accomplished through the offering of professional opportunities within two tracks, the teaching track and the professional track.

The Teaching Track

ADMISSIONS REQUIREMENTS FOR ALL TEACHER EDUCATION PROGRAMS ARE PRESENTED IN THE DEPARTMENT OF EDUCATION SECTION OF THIS CATALOGUE.

The professional physical education teacher must have an understanding of the meaning and significance of movement, the growth and development of the individual, and the application of physical, biological, and behavioral sciences to the actual teaching/learning process. The curriculum for the prospective physical education teacher is designed to build progressively upon meaningful concepts and experiences acquired within other disciplines as well as those which are unique to the profession. In addition, competencies which have been identified with successful teaching methodology are an integral part of the curricular content.

Completion of the curricular requirements may result in certification by the South Carolina Department of Education to teach physical education in grades K-12. Additional certification in health education may be pursued through 12 hours of required courses (*) and 12 hours of electives selected from among the following offerings. Successful completion of the Health Section of the National

Teacher's Exam (NTE) is also required.

***Required Courses**

		Credit Hours
BIOL 303	Human Anatomy	3
BIOL 304	Human Physiology	3
HLED 300	First Aid/Emergency Care	3
HLED 406	The School Health Program	<u>3</u>
		12

Approved Electives

		Credit Hours
HLED 401	Nutrition	3
HLED 402	Drug and Substance Abuse	3
HLED 403	Human Sexuality	3
HLED 404	Public Health	3
HLED 408	Health and Epidemiology	3
HLED 409	Methods/Materials of Sex Education	3
HLED 410	Consumer Health	3

Successful completion of RPED 250 (Contemporary Health Foundations) and RPED 251 (Foundations of Fitness and Exercise) will be credited as one Contemporary Health Problems course.

The Professional Track

Alternatives to the teaching of Physical Education are available through two professional specialty areas: Health/Wellness and Sports Management/Administration.

The Health and Wellness Option is structured to prepare the student for: professional opportunities in public and private health agencies, admission to physical/occupational therapy programs, and programming in America's \$80 billion wellness industry.

The student in the Health/Wellness option must complete the professional track curriculum which includes eight (8) of the following eighteen elective courses:

Intro to Computer Applications	CSCI 115
Genetics	BIOL 308
Microbiology	BIOL 310
General Biology II	BIOL 102
Man and His Environment	BIOL 209
Human Sexuality	HLED 403
Public Health	HLED 404
General Psychology	PSYC 201
Introduction to Sociology	SOCI 201
Statistical Methods	MATH 160

Abnormal Psychology	PSYC 304
Sports Psychology	PHED 408
Theories of Personality	PSYC 306
Applied Psychology	PSYC 404
Health and Epidemiology	HLED 408
Consumer Health	HLED 410
Senior Research Project	PHED 420

The Sports Management and Administration Option is designed to prepare the student for a multitude of professional opportunities which include: community and industrial recreation, resort sports programming, intramural/recreational sports and varsity program administration in schools, and management in the fitness industry.

The student in the Sports Management/Administration option must complete the professional curriculum and select eight (8) of the following seventeen courses as approved electives.

Principles of Macroeconomics	BADM 201
Principles of Microeconomics	BADM 202
Accounting I	BADM 211
Accounting II	BADM 212
Legal Environment of Business	BADM 305
Marketing Principles	BADM 309
Business Finance	BADM 321
Principles of Management	BADM 325
Intro to Computer Applications	CSCI 115
General Psychology	PSYC 201
Sports Psychology	PHED 408
Intramural/Rec Sports	PHED 417
Elementary Physical Ed	PHED 433
Writing In The Professions	ENGL 411
Journalism	ENGL 417
Senior Research Project	PHED 420
Administration of Interscholar Athletics	PHED 431

Minor in Health

Objectives:

The minor in health is designed to allow students to acquire knowledge and understanding in a discipline that is universal in application. Participation in the program will allow students to attain a level of expertise in an area that can complement their major and increase avenues of professional development. The minor program is *not* designed to meet requirements for South Carolina public school certification in health education.

Competencies, Knowledge, or Skills to be Achieved:

Students will have the opportunity to explore the role of health in an advanced society. Students will gain knowledge and skills which can advance their health status and the wellness of their family.

No students are excluded from this minor.

*Structure of the Minor:*1. *Required Courses*

- HLED 300 First Aid and Emergency Care
- HLED 401 Nutrition
- HLED 403 Human Sexuality
- PSYC 202 Developmental Psychology

2. *Electives*

The student may choose any 2 of the following courses:

- BIOL 209 Man and His Environment
- BIOL 406 Ecology
- HLED 402 Drug and Substance Abuse
- HLED 404 Public Health
- HLED 408 Epidemiology
- HLED 410 Consumer Health
- PHED 406 Directed Field Experience
- PHED 419 Physiology of Exercise
- PHED 420 Senior Research Project
- PSYC 304 Abnormal Psychology
- PSYC 404 Applied Psychology

Students should confer with their faculty advisor concerning the desire to minor in health and file a declaration of intent with the Head of the Department of Health and Physical Education. The declaration is to include the projected course of study. The Department Head will approve the course of study and verify its completion to the Records Office.

Total Credit Hours Required—18

Physical Education Course Descriptions

PHED 101 *Introduction to Physical Education* Three Credit Hours

A study of the philosophies, aims, objectives, and principles of physical education as an integral part of the total education of man: past, present, and future. Professional development and career opportunities are also emphasized.

PHED 102 *Learning Theory and Methodology* Three Credit Hours

A presentation of basic learning theory and methodology as related to the acquisition of gross motor skills.

Lecture: two hours; field experience: two hours

PHED 205 *Measurement and Evaluation* Three Credit Hours

A course which includes test selection and administration, analysis, and interpretation of data for various cognitive, affective and psychomotor tests commonly associated with health and physical education.

Lecture: three hours

PHED 220 *Methods of Teaching Gymnastics* One Credit Hour

A presentation of theoretical and biomechanical aspects of gymnastics apparatus and tumbling skills. Attention is given to teaching techniques, basic skills development, and evaluation.

Lecture: one hour

PHED 221 *Methods of Teaching Rhythmic Activities* One Credit Hour

A methodological treatment of fundamental rhythmic, creative rhythms, traditional dance steps, folk dance, square dance, social dance, and polyrhythmic activities.

Lecture: one hour

PHED 222 *Methods of Teaching Aquatics* One Credit Hour

A pedagogical treatment of aquatic methods including the basic instruction of swim strokes and water safety.

Lecture: one hour

PHED 223 *Methods of Teaching Outdoor Education* One Credit Hour

Methods of teaching outdoor education activities including, but not limited to: canoeing, cycling, camping, backpacking, and sailing.

Lecture: one hour

PHED 224 *Basketball Theory* One Credit Hour

A study of defensive and offensive systems of team play, individual skills, rules, officiating responsibilities, and team strategy.

Lecture: one hour

PHED 225 *Baseball Theory* One Credit Hour

A study of the history, rules, development, equipment, theory, and strategy of baseball.

PHED 226 *Football Theory* One Credit Hour

A comparative presentation of offensive and defensive systems of play with attention devoted to drills, rules, strategies, skills, training, and personnel place-

ment.

Lecture: one hour

PHED 227 *Soccer Theory* One Credit Hour

The study of the history, rules, training techniques, strategies, and skills of soccer.

Lecture: one hour

PHED 228 *Methods of Teaching Lifetime Sports* One Credit Hour

The study of a variety of selected contemporary lifetime sports.

Lecture: one hour

PHED 229 *Adult Fitness Programming* One Credit Hour

The study of basic exercise physiology, fitness evaluation, exercise prescriptions, and fitness program planning.

Lecture: one hour

PHED 230 *Methods of Teaching Wrestling* One Credit Hour

The study of wrestling skills, mechanical principles, training techniques, and strategies.

Lecture: one hour

PHED 231 *Track and Field Theory* One Credit Hour

The analysis of track and field events which includes developmental, mechanical, and technical components of study.

Lecture: one hour

PHED 314 *Biomechanical Kinesiology* Three Credit Hours

Prerequisites or corequisites: BIOL 303, BIOL 304, BIOL 305, and BIOL 306

The anatomical and mechanical analysis of functional posture and motor performance for the purpose of improving teaching and coaching effectiveness.

Lecture: two hours; laboratory: two hours

PHED 402 *Care and Prevention of Athletic Injuries* Three Credit Hours

Prerequisites: BIOL 303 and BIOL 305

Discussion, demonstration, and application of the skills and procedures utilized in athletic training.

Lecture: two hours; laboratory: two hours

PHED 403 *Special Physical Education* Three Credit Hours

Identification of various physical, mental, and emotional anomalies with implications for physical education. Attention is given to procedures involved in

“mainstreaming” the special student.

Lecture: two hours; laboratory: two hours

PHED 404 *Administration of Physical Education* Three Credit Hours

A study of administrative philosophy and procedures which relate to curriculum and program development, finance, budgets and purchasing, and the legal aspects of teaching and coaching.

Lecture: three hours

PHED 406 *Directed Field Experience* Three Credit Hours

Open as an elective to senior health and physical education majors only.

A controlled exposure to professional experiences in a selected area which may include, but not be limited to, athletic coaching, athletic training, physical therapy, intramurals, recreation, recreation therapy, and public health education.

Lecture: one hour; field experience: six hours

PHED 408 *Introduction to Sports Psychology* Three Credit Hours

Analysis and interpretation of current research in the areas of maturation and development, learning theory, perception, personality, motivation, and group dynamics which relate directly to physical education and competitive athletics.

Lecture: three hours

PHED 417 *Intramural and Recreation Programs* Three Credit Hours

A study of the history, philosophy, and practical and theoretical bases of intramural and recreational program.

Lecture: three hours

PHED 419 *Physiology of Exercise* Three Credit Hours

Prerequisites: BIOL 303, BIOL 304, BIOL 305, and BIOL 306

A comprehensive study of the effects of exercise upon the components of physical fitness, including, but not limited to, strength, muscular endurance, flexibility, and cardiovascular-respiratory endurance.

Lecture: two hours; laboratory: two hours

PHED 420 *Senior Research Project* Three Credit Hours

A research problem conducted as an independent study. The topic and procedure for this study must be approved by the department faculty.

PHED 421 *Senior Seminar* One Credit Hour

A seminar conducted for the purpose of reviewing subject matter from all courses in the health and physical education curriculum, and which culminates in a comprehensive written and oral examination.

PHED 431 *Administration of Interschool Athletics* Three Credit Hours
A study of the policies and procedures involved in interschool athletic administration.

Lecture: three hours

PHED 433 *Elementary School Physical Education* Three Credit Hours
A study of the progressively graded program of activities for the elementary schools, grades K-6. Theoretical as well as practical material will be presented.

Lecture: two hours; field experience: twenty hours

PHED 499 *Internship in Teaching* Twelve Credit Hours
Observation and teaching in an approved school under the direction of a cooperating teacher and a college supervisor.

Lecture: two hours; field experience: twenty hours

Health Education Course Descriptions

The following block of courses represents an opportunity for the student to take health education courses as electives within various curricula. These courses may be applied toward teacher certification in health education (24 semester hours) or toward the Health/Wellness track electives (8 courses).

HLED 300 *First Aid and Emergency Care* Three Credit Hours

A comprehensive coverage of safety concepts and accident prevention as well as the presentation of specific topics such as the cursory examination, wounds, traumatic shock, asphyxia, cardiac arrest, burns, toxins, and bone, joint and muscle injuries.

Lecture: three hours

HLED 401 *Nutrition* Three Credit Hours

A detailed study of the primary nutrients essential to health with attention given to specific needs from infancy through adulthood. Current theories and practices related to physical and intellectual performances are also investigated. Contemporary topics are presented such as degenerative diseases, food-borne diseases, fad dieting, food additives, and health foods.

Lecture: three hours

HLED 402 *Drug and Substance Abuse* Three Credit Hours

An indepth study of the characteristics of commonly abused drugs and substances and the reasons for their abuse.

Lecture: three hours

HLED 403 *Human Sexuality* Three Credit Hours

A comprehensive study of all facets of human sexuality.

Lecture: three hours

HLED 404 *Public Health*

Three Credit Hours

An analysis of public health trends, services, funding, and organization of local, state, and federal agencies.

Lecture: three hours

HLED 405 *Health Problems in the Classroom*

Three Credit Hours

A course designed to provide the elementary, middle, and high school classroom teacher with the knowledge to identify, manage, or refer health problems commonly encountered in the school environment. Available to physical education majors as an elective with the approval of the department head.

Lecture: three hours

HLED 406 *The School Health Program*

Three Credit Hours

A study of the total school health program and the role of health and physical education within the program.

Lecture: three hours

HLED 407 *Methods and Materials
in Health Education*

Three Credit Hours

A course designed to prepare the potential health educator in the areas of curriculum design at all grade levels, teaching methods, teaching styles, and evaluation.

Lecture: three hours

HLED 408 *Health and Epidemiology*

Three Credit Hours

A course designed to acquaint the potential health educator or public health worker with the science of epidemiology and the techniques used in the study of disease.

Lecture: three hours

HLED 409 *Methods and Materials of Sex Education* Three Credit Hours

A course designed to prepare the health educator in the promotion and teaching of family life education in the schools. The course will focus on promotion, planning, and implementation of programs at all grade levels.

Lecture: three hours

HLED 410 *Consumer Health*

Three Credit Hours

A course designed to provide factual, and scientifically based information about medical goods and services as well as development of consumer skills in the areas of decision-making, values clarification, assertiveness, bargaining, bidding, data collection, and data analysis.

Lecture: three hours

Department of History

Department Head: White

Professors: Coussons, Nichols, J. Moore, White, Gordon, Tripp, W. Moore

Associate Professors: Barrett, Bishop

Assistant Professors: Haldane, Pilcher

The Department of History endeavors to give students an acquaintance with, and an appreciation for, our historical heritage, and seeks to enable them to see the relationship between causes and effects in the historical development of their own and other countries, and of civilization at large. Furthermore, the study of history is intended to assist the student's development of critical thinking, including the analysis and evaluation of historical evidence, and the ability to integrate and interpret such data. History has proven to be a useful preparation for careers in the business, legal, ministerial, military and other public service professions, as well as a preparation for continuing study in graduate history programs. The Department offers the student majoring in History ample freedom in the selection of upper level courses within the department and, with 24 hours of general electives, among courses offered by other departments.

From within the department, students majoring in history are required to take the following courses: HIST 103-104 (History of Western Civilization); HIST 201-202 (Survey of American History); HIST 203 (Introduction to the Discipline History); two courses from Group I (European), two courses from Group II (American), one course from Group III (Latin American and Non-Western World), and one course from Group IV (Diplomatic/Military). In addition, students are required to take three additional courses as history electives.

Group I. European. HIST 321 (The Middle Ages), HIST 322 (Renaissance and Reformation), HIST 323 (Absolutism and the Age of Reason), HIST 324 (The French Revolution and Napoleon), HIST 325 (Europe, 1815-1914), HIST 326 (Europe since 1914), HIST 327 (England to 1660), HIST 328 (England Since 1660), HIST 421 (The Ancient Greeks), HIST 422 (The Romans), HIST 423 (The Byzantine Empire), HIST 424 (History of Modern Russia), HIST 435 (Scotland since 1707), HIST 481 (Hitler and National Socialism), and HIST 491

(Special Topics in European History).

Group II. American. HIST 403 (The American West), HIST 301 (Revolutionary America), HIST 303 (Jefferson and Nationalist Period), HIST 305 (America Comes of Age, 1865-1919), HIST 306 (The U.S. since 1919), HIST 401 (The American South), HIST 402 (South Carolina History), HIST 413 (The Social and Intellectual History of the U.S.), HIST 473 (The Great Crusade: Americans during World War II), and HIST 492 (Special Topics in American History).

Group III. Latin America and Non-Western World. HIST 417 (The Non-Western World), HIST 425 (Islam and the Middle East), HIST 450 (Colonial Background to Latin America), and HIST 451 (Latin America), HIST 461 (The Modernization of China and Japan), HIST 477 (Cuba, the Caribbean, and Central America), and HIST 493 (Special Topics in Latin American and Non-Western History).

Group IV. Diplomatic/Military. HIST 482 (Naval Warfare), HIST 304 (Disunion and the War for Southern Independence), HIST 410 (U.S. Foreign Policy since World War II), HIST 411 (History of American Diplomacy), HIST 483 (Great Captains), HIST 485 (Policy and Strategy Since 1789), HIST 487 (The Patterns of War to the Late Eighteenth Century), HIST 488 (The U.S. and the Patterns of War since the Late Eighteenth Century), HIST 489 (The Vietnam War), and HIST 494 (Special Topics in Diplomatic/Military History).

From outside the department, students majoring in history are required to take 12 semester hours of a modern language; PSCI 201 (American Politics and Government) which meets the Social Science Core requirement as designated by the College; and nine hours of Political Science (PSCI prefix) in courses numbered at the 300-400 level. All History majors are required to take at least 12 semester hours of English, 16 semester hours of science (8 hours each from the same science), and 6 semester hours of Mathematics. For further guidance, see the curriculum for History majors in the Courses of Study section of this catalogue.

Minor in History (Not open to History majors)

Objectives:

A minor in History, reflecting the structured and sequential offerings within the department, affords students who do not choose to major in History the opportunity to develop expertise within the discipline consistent with their interests and their plans beyond graduation. The minor is designed to give the non-History major an introduction to the basic skills of the historian and the depth of advanced study of the discipline offered within the department whether generally or specifically.

Competencies, Knowledge, or Skills to be Achieved:

The student completing the minor will have the beginning skills of the his-

torian and advanced work within the discipline consistent with his interests. He will be experienced both in technique and knowledge, and therefore be better prepared for his options following graduation.

Structure of the Minor:

1. While the student may design his minor in History either on the basis of the History major or to key it to one of the four groups of courses offered by the department, a required course in all cases is HIST 203 (Introduction to the Discipline of History).

2. The student must choose one of the groups below for his History minor. Except for World History, all courses by group may be found in this catalogue under the major in History:

a. World History. A minimum of one course each from the following history groups (Groups I-IV): Europe, United States, Latin American/Non-Western World, and Diplomatic/Military.

b. European History (Group I). A minimum of four courses from the European history group.

c. United States History (Group II). (1) HIST 201/202 (Survey of American History). (2) At least two courses at the 300-level or above from the U.S. history group.

d. Latin American/Non-Western World (Group III). A minimum of four courses from the Latin American/Non-Western World group.

e. Diplomatic/Military (Group IV). A minimum of four courses from the Diplomatic/Military group.

Total Credit Hours required of all History minors: 15 hours beyond the College Core Requirements in History (HIST 103-104).

Note: For transcript purposes, the History minor, depending on the elective sequence chosen above, will be designated as one of the following: World History, European History, United States History, Latin American/Non-Western World History, or Diplomatic/Military History.

History Course Descriptions

HIST 103 and HIST 104	<i>History of Western Civilization</i>	Three Credit Hours Each Semester
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Formerly HIST 221 and HIST 222

Required of all majors.

A survey of the development of Western institutions, ideas, and cultures from ancient times to the present day. Emphasis is given to the economic, social and cultural forces as well as to political and military factors. First semester to 1660, second from 1660 to the present.

HIST 201 and HIST 202	<i>A Survey of American History</i>	Three Credit Hours Each Semester
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Required of all History majors.

Survey of American history from the period of discovery to the present; a brief treatment of the colonial period, followed by a more detailed study of such subjects as the causes of the Revolution, the framing of the Constitution, the development of political parties, the sectional conflict, economic progress and problems, and foreign relations; special emphasis placed on understanding the nature of American democracy and the role of the United States in world affairs from 1789 to the present.

HIST 203 *Introduction to the Discipline of History* Three Credit Hours
Required of all History majors and History minors.

An introduction to the history of the research and writing of history as a craft. According to the particular professor instructing, the course will address theories of history, computer simulation, the use of diaries, memoirs, and government documents, as well as the use of historic sites, architecture, photographs, paintings, cinema, and literary fiction as evidence in reconstructing and interpreting historical events.

HIST 301 *Revolutionary America* Three Credit Hours

The motives of colonization; the evolution of self-government; the extension of the frontier; economic, social, and religious life; imperial rivalries, and the origins, events, and results of the American Revolution.

HIST 303 *The Jeffersonian and Nationalist Period* Three Credit Hours

A study of American history, 1800-1850, with an emphasis on the clash of Federalist and Jeffersonian Principles; emerging political and cultural nationalism; the War of 1812; the influence of Jacksonian Democracy in the political, social, and economic life; growing sectionalism; and the Mexican War.

HIST 304 *Disunion and the War for Southern Independence* Three Credit Hours

The political, economic, diplomatic, and military history of the United States, 1850-1865, emphasizing the forces that tended to bind or disrupt the Union and including a detailed account of the war.

HIST 305 *America Comes of Age, 1865-1919* Three Credit Hours

Reconstruction, the last frontier, the advent of big business with its effects, the origins of American imperialism, the Spanish-American War, the Progressive movement, the First World War, and the Treaty of Versailles.

HIST 306 *The United States Since 1919* Three Credit Hours

The Decade of the Twenties, the Great Depression, the Second World War, the Cold War, the Post-Cold War Era; a study of national efforts to fulfill the

American democratic vision during a century marked by wars, accelerating technological innovations, material progress, and cultural transition.

HIST 321 *The Middle Ages* Three Credit Hours

The nature of society and events in Western Europe from the 7th and 8th centuries A.D. until the decay of the Medieval world in the fourteenth century. Topics include the rise of the Franks and the Papacy, the establishment of feudalism, the wars between the Popes and the Holy Roman emperors, the Crusades, intellectual revival, establishment of town democracy, and rise of nation-states at the end of the period.

HIST 322 *Renaissance and Reformation* Three Credit Hours

The Renaissance as a European-wide movement emanating from the Italian peninsula; the crisis of the church medieval and the rise of the Renaissance papacy; Humanism, with special emphasis on the great painters, architects, and sculptors of the time; the Renaissance city-states and monarchies of France, England, Spain, and the Holy Roman Empire; and the religious upheavals of Protestantism, the Catholic Reformation, and civil and religious wars.

HIST 323 *Absolutism and the Age of Reason* Three Credit Hours

Europe, 1648-1789, the ascendancy of France, emergence of Prussia and Russia, colonial rivalries, dynastic struggles, enlightenment, and rationalism.

HIST 324 *The Era of the French Revolution and Napoleon* Three Credit Hours

A survey of the causes of the Revolution followed by an examination of the principal events of the period with stress on the major personalities, the ideologies and revolutionary mentality, the political and social aspirations of the lower social orders, the unstable nature of the various revolutionary governments, and the rise of Napoleon and his achievements.

HIST 325 *Europe, 1815-1914* Three Credit Hours

The course of European history from Napoleon's defeat at Waterloo to the outbreak of World War I. Emphasis is placed on political reaction and reform; the Industrial Revolution and its economic, social and political effects; the Darwinian revolution and its impact on Western thought about man and his origins; the rise of nation-states in Italy and Germany; overseas imperialism; and the factors that contributed to the outbreak of the First World War.

HIST 326 *Europe Since 1914* Three Credit Hours

A survey of the origins and impacts of two World Wars on the major European states, their political, social, and economic development, and their relative positions today.

HIST 327 *England to 1660* Three Credit Hours

A survey of English history from prehistoric times through the English civil war of the 17th century and its aftermath. Emphasis is placed on the development of Parliament, the monarchy, the legal system, and local government. The evolution of British society is traced from Celtic and Roman times through King Alfred, the Anglo-Saxons, the Normans, the Wars of the Roses, the Tudors, and the first Stuart monarchs. Special attention is paid to Celtic warfare, the Roman conquest, Anglo-Saxon warfare, the armored knights of Norman times, and the English legacy to Americans.

HIST 328 *England Since 1660* Three Credit Hours

A survey of English history from the Stuart Restoration to the present, including the Glorious Revolution of 1689, the reign of the Hanoverians, the development of England as an industrial power and leader in overseas expansion in the 18th and 19th centuries, its role in two world wars in the 20th century, its experience as a welfare state, and its decline as a great power.

HIST 401 *The American South* Three Credit Hours

The political, economic, social, and intellectual development of the South and its relationship to the nation from Jefferson to the present. Topics examined include: the impact of Jefferson and Calhoun; the plantation, black and white folk culture; the concept of honor; the ethic of manners and violence; the theory of state rights; populism and progressivism; and civil rights. Special emphasis is given to race relations as a central theme shaping regional patterns of change, continuity and distinctiveness.

HIST 402 *South Carolina History* Three Credit Hours

A survey of the political, economic, social, and the intellectual development of South Carolina from its discovery to the present, with emphasis on the relation of the state to the South and to the nation.

HIST 403 *The American West* Three Credit Hours

A study of the settlement of the West and its influence on American life. Topics examined include: mountain men and missionaries; Indians and Indian figures; the cowboy and the cult of western heroes; patterns of frontier violence; homesteading; mining towns; railroad building. Emphasis given to national traits, like individualism, associated with the frontier experience and to the influence of the West on American life to the present day.

HIST 410 *American Foreign Policy
Since World War II* Three Credit Hours

Diplomatic problems arising from the war, increased responsibilities, the United Nations, American-Soviet rivalry, the Cold War, world treaties and commit-

ments, national security strategies, economic policies, and other military and non-military initiatives in international relations.

HIST 411 *History of American Diplomacy* Three Credit Hours

The foreign relations of the United States from colonial times to the present, primarily emphasizing the effects of domestic pressures upon policy choices of the American government and the impact of these decisions in the international environment. Approximately two-thirds of the course deals with the period 1914 to the present.

HIST 413 *Social and Intellectual History
of the United States* Three Credit Hours

Analysis of the history of American thought, values and culture, and their relationship to the modernization of social and economic life. Emphasis given to such topics as the impact of Puritanism, Enlightenment, Darwinism, Pragmatism, Freudianism, immigration, social mobility, and the "mood" as reflected in film, photography, and fiction.

HIST 417 *Social and Cultural History of
The Non-Western World* Three Credit Hours

Origins and development of selected non-Western cultures, examining their historical and cultural values and customs as well as their social and political institutions. Emphasis is placed on the cultures of China, Japan, Southeast Asia, the Indian Subcontinent, the Arab and Islamic world, sub-Saharan Africa, and the Americas.

HIST 421 *The Ancient Greeks* Three Credit Hours

A detailed examination of ancient Greek political history and the ancient Greek contribution to politics, war, philosophy, literature, art, and the Archaic and the Classical ages, and the Hellenistic period to the Roman conquest.

HIST 422 *The Romans* Three Credit Hours

A survey of Roman history from Rome's origins as a Latin village through its conquest of Italy, defeat of Carthage and Greece, and the Roman empire to dominance over the Mediterranean world; the empire's gradual corruption, loss of political freedoms, the transition to an absolutist, Christian monarchy. Emphasis is placed on the personalities and values of the Romans and how these led to Rome's glories and failures.

HIST 423 *The Byzantine Empire* Three Credit Hours

The course begins with the turn of the Roman Empire to Christianity in the 4th century, then traces how the new religion changed the nature of the Empire.

The course covers the conquests of the Germans over its western territories and the Muslims over its southern parts during the early Middle Ages. The fortunes of the remaining "Byzantine Empire" are followed through its revival, and then its decline with the Crusades and its final destruction by the Ottoman Turks.

HIST 424 *History of Modern Russia* Three Credit Hours

History of the development of tsarist absolutism under the Romanov dynasty and of the religious, social, and economic institutions of the tsarist state. Intensive treatment of the 1917 Revolution and the institutional development of the Soviet state to world power status.

HIST 425 *Islam and the Middle East* Three Credit Hours

A general survey of Islamic history from its beginnings to the present, covering the nature of the religion and society created by Mohammed, the conquest of lands that became Muslim, the politics and culture of the Muslim golden age, the Crusades and Ottoman conquests, and the emergence of modern Islamic countries and problems in the Middle East.

HIST 435 *Scotland Since 1707* Three Credit Hours

A survey of the political, social, cultural and economic history of Scotland since union with England. Topics include Jacobitism, the clan system, the Highland clearances, the industrialization of the Lowlands, and Scottish nationalism. Special emphasis is placed on attempts to retain Scottish distinctiveness while integrating into the wider community of Great Britain.

HIST 450 *The Colonial Background to Latin America* Three Credit Hours

A detailed examination of the pre-Columbian and post-Columbian experiences in Latin America to 1810. Emphasis is placed on the varied melding of the indigenous, European, and African contributors and the roles they played within the framework of the Iberian empires in America. A cultural and institutional approach provides a necessary appreciation of the present-day complexities of this region.

HIST 451 *Modern Latin America* Three Credit Hours

Beginning with a brief introduction to the colonial ambient and the Latin American wars for independence, the course explores the development of the several Latin American nations since 1810. Emphasis is placed on the major nations of the region such as Mexico, Brazil, and Argentina, as well as to the Andean nations and the still-volatile Caribbean. The economic and strategic roles of these nations are addressed.

HIST 461 *The Modernization of China and Japan* Three Credit Hours

A study of the impact of Western imperialism on Southern Asia, China, and Japan, and East Asia's response in the nineteenth and twentieth centuries. Special emphasis is placed on the transition from traditional to modern nation-states, Confucianism in China, the samurai tradition in Japan, Chinese communism, Japanese political militarism, and the demise of colonialism in Asia.

HIST 473 *The Great Crusade: Americans during the Second World War* Three Credit Hours

A study of the United States in World War II which focuses upon domestic society and the relationship of the changing culture to the postwar America of global commitments and consumption of consumer goods.

HIST 477 *Cuba, the Caribbean, and Central America* Three Credit Hours

An analysis of the Caribbean basin in historical perspective, with initial emphasis on its varied geography, nationalities, and racial mix. Special attention is paid to the strategic and economic importance of this region from the perspective of the United States. Overall emphasis is placed on a better understanding of the more recent events in Castro's Cuba, Nicaragua, and Panama.

HIST 479 *Hitler and National Socialism* Three Credit Hours

A survey of the Nazi movement from its late nineteenth century antecedents to its culmination in 1945. Special emphasis will be given to the life of Hitler and to areas of controversial interpretation. Among these are the alleged reactionary nature of National Socialism, the "legal" rise of the party to power, the statesmanship of Hitler, his sanity, and the Holocaust.

HIST 482 *History of Naval Warfare* Three Credit Hours

A history of warfare at sea from ancient times to the present with emphasis on the historical development of naval architecture, technology and organization; the evolution of naval tactics and strategy, and the influence of seapower upon world affairs.

HIST 483 *Great Captains: Major Commanders from Ancient Times to the Present* Three Credit Hours

An analytical and interpretative study of the character, styles of command, and achievements of the more influential commanders in the history of warfare from Alexander the Great to Rommel. Particular attention is given to the contributions of these historical figures, to their role in the development of the

concept of command and strategic formulation in the Western world, and to the relationship of military to political leadership.

HIST 485 *Policy and Strategy since 1789* Three Credit Hours

Using the strategic framework of Sun-Tzu and Clausewitz, and focusing on the problem of matching means to ends, the course will examine the relationships between a nation's political interests and goals and the way military force and diplomatic pressure are used to attain these goals. Beginning with the wars of Napoleon and continuing through recent conflicts such as the Persian Gulf War, students will examine such issues as strategy/policy matches, civil-military relations, and prewar plans versus wartime results.

HIST 487 *The Patterns of War from Ancient Times to the Late 18th Century* Three Credit Hours

The patterns of war from ancient times to the eve of the American Revolution with emphasis on change in the technological, organizational, and social-political nature of war. (HIST 487 was formerly entitled *Studies in Military Affairs Since the Eighteenth Century*)

HIST 488 *The United States and the Patterns of War Since the Late Eighteenth Century* Three Credit Hours

The study of the patterns of war from the late eighteenth century to the present, with emphasis on the impact of technology, social-political factors, and organization on the waging of war in general and especially on American military practice.

HIST 489 *History of the Vietnam War* Three Credit Hours

The history of the American war in Vietnam, including the foundations of French imperialism in Indochina, native resistance, the First Indochina War, American policy, intervention, and withdrawal, the impact on American domestic society, and the fall of the Western oriented government of South Vietnam.

Specialty Course Descriptions

These courses are intended to be offered on an occasional basis, according to student demand and staffing availability. In addition, those courses that suit a seminar or tutorial format will permit students to be exposed to modes of instruction and learning other than those emphasized in lecture-oriented classes.

HIST 490 *Research Project* Three Credit Hours

Prerequisite: Approval of department head and supervising professor.

An independent research project culminating in a formal paper. Research

topic determined through consultation between student and supervising professor. Especially recommended for those students considering graduate or professional studies.

HIST 491 *Special Topics in European History* Three Credit Hours

Examples include: The Crusades; the Scientific Revolution; the Age of Louis XIV; the Golden Age of the Hapsburgs, 1740-1914; the French Foreign Legion; the Russian Revolution as portrayed in literature and film; the development of the English constitution; and Germany since 1945.

HIST 492 *Special Topics in American History* Three Credit Hours

Examples include: African-American history; African-Americans in U.S. military history; American legal history; American business history; American history as portrayed in photography and film; 20th Century American history as seen through literature; the Roaring Twenties; the Depression and New Deal; and the U.S. from Korea to Vietnam.

HIST 493 *Special Topics in Latin American
and Non Western History* Three Credit Hours

Examples include: Columbus and His World; Slavery in the Spanish Main; Portuguese Colonization of Brazil; History of the Ottoman Empire; and Twentieth Century Africa.

HIST 494 *Special Topics in Diplomatic/
Military History* Three Credit Hours

Examples include: The Napoleonic Legacy in Warfare; the United States in World War I; the Cold War; Nuclear Weapons and Arms Control; Theories of Strategy and Policy; the French Foreign Legion and French Imperial Policy; the Panama Canal and the Balance of Power; the German Army since 1740; and the history of intelligence and national security.

HIST 495 *Special Topics in History* Three Credit Hours

Examples include: Crime and Punishment through the Ages; Imperialism; Revolutions in the Western World; Science and Technology in the Western World; the History of Medicine; and Psycho-Sociological History.

HIST 496 *Seminar* Three Credit Hours

Subject to the approval of the department head, a seminar on some special topic or historical problem as proposed by faculty or History majors. Topics include: Castro's Cuba; the Founding and Development of the State of Israel; Stalin's Russia; and the Presidency of Franklin D. Roosevelt.

HIST 497 *Tutorial* Three Credit Hours

Subject to the approval of the department head, the tutorial is designed to meet the needs or interests of one or a few students. Readings, tutorial sessions, papers, and/or tests will be assigned by the professor in consultation with individual students.

Department of Mathematics and Computer Science

Department Head: Comer

Professors: Metts, Comer, Cleaver, Greim

Associate Professors: Crabtree, Pages, Denig, Cohn, Durgun,

Hoyle, Francel, Zahid, Hurd, Trautman, Chen

Assistant Professor: Lipscomb

To meet the demands of a world in which mathematics is playing an increasingly important role, The Citadel requires of all students at least one year of mathematics. In the science and engineering majors, two or more years of mathematics must be completed.

This department offers three degree programs: the B.S. with a major in mathematics, the B.A. with a major in mathematics, and the B.S. with a major in computer science. Complete listings of the courses of study leading to these degrees are found in the Courses of Study section of this catalogue.

B.S. Mathematics Major

The B.S. program in mathematics is designed to prepare our students to pursue graduate work in pure or applied mathematics and to provide the background which will enable them to use mathematics in the behavioral sciences as well as in more technical areas. Students pursuing a B.S. degree must choose either the Applied Mathematics or Pure Mathematics Option.

The course of study leading to the B.S. with a major in mathematics includes 24 semester hours of general electives. The required courses are 4 semester hours of computer science (CSCI 201) and the following 30 semester hours of core mathematics: MATH 131, MATH 132, MATH 206, MATH 231, MATH 232, MATH 240, MATH 303, STAT 361, MATH 403. In addition, the student must select 18 hours of Approved (Mathematics) Electives from among the mathematics courses numbered at the 300 or 400 level. For students pursuing the Pure Mathematics Option, these 18 hours of Approved (Mathematics) Electives must include MATH 304 or MATH 404. For students pursuing the Applied Mathematics Option, these 18 hours must include MATH 343, MATH 344, MATH 381, and MATH 470.

B.A. Mathematics Major

The B.A. program features a strong preparation in mathematics with an opportunity to explore another field in some depth. It is strongly recommended that students pursuing the B.A. degree choose a minor as well. Candidates in this program must take 4 semester hours of Computer Science (CSCI 201); 27 semester hours of core mathematics: MATH 131, MATH 132, MATH 206, MATH 231, MATH 232, MATH 240, MATH 303, MATH 470; 3 semester hours of statistics: STAT 361; and 6 semester hours of approved mathematics electives.

B.S. Computer Science Major

The B.S. program in computer science offers the student a sound experience in computer software complemented by a broad core of courses in the sciences and liberal arts, a background in mathematics which has sufficient breadth and depth to enable the student to deal with scientific applications as well as the theoretical basis of computer science, and an exposure to computer hardware (microprocessors) through courses offered by the Department of Electrical Engineering, ELEC 305 (Digital Systems Fundamentals) and ELEC 428 (Digital Systems Design). Through electives, the student will have the opportunity to gain background in areas, such as business administration and political science, where the information processing aspects of computer science are readily applied. Upon completion of this course of study, students (depending on the selection of Electives) will be qualified for careers as system analysts, system programmers, applications programmers for business or industry, or researchers. In addition, graduates will be well prepared to pursue advanced degrees in computer science or applied mathematics.

The course of study leading to the B.S. with a major in computer science includes 18 hours of Electives; 17 hours of core mathematics: MATH 131, MATH 132, MATH 206, MATH 240, STAT 361; one Approved (Mathematics) Elective selected from among the mathematics courses offered at the 200 level or higher; 29 hours of required courses in computer science: CSCI 201, CSCI 202, CSCI 262, CSCI 315, CSCI 320, CSCI 355, CSCI 405, ELEC 305, and ELEC 428; and 9 hours of Approved (Computer Science) Electives selected from among the computer science courses offered at the 300 or 400 level. The complete course of study is provided in the Courses of Study section of this catalogue.

Minor in Management Information Science

Objectives:

A minor in Management Information Science will provide students the opportunity to receive experience with computers and see applications in management and statistics.

Competencies, Knowledge, or Skills to be Achieved:

A student who completes this minor will have had the opportunity to develop programming skills useful in business, design and manage databases, and master quantitative techniques used in a managerial decision-making process.

Structure of the Minor:

1. Required courses: (12 credit hours)

CSCI 208 COBOL

CSCI 216 Management Information Systems

CSCI 386 Applied Operations Research

STAT 461 Data Analysis

2. Electives (3 credit hours)

Choose one of the following courses:

BADM 325 Principles of Management

BADM 411 Business Information Systems

Total Credit Hours Required — 15

Minor in Computer Programming

Objectives:

A minor in Computer Programming will provide a student with the opportunity to develop the software tools necessary for designing and understanding large programs.

Competencies, Knowledge, or Skills to be Achieved:

A student who completes this minor will receive experience with computer programming in a high level structured language. A student will have the opportunity to develop a sound foundation in techniques for designing, testing, and debugging structured programs.

This minor is not approved for students majoring in Computer Science.

Structure of the Minor:

1. Required courses: (14 credit hours)

CSCI 201 Introduction to Computer Science I

CSCI 202 Introduction to Computer Science II

CSCI 315 Data Structures

MATH 206 Discrete Structures*

*Mathematics majors must substitute an additional CSCI elective.

2. Electives (3 credit hours)

A CSCI course numbered 300 or higher.

Total Credit Hours Required — 17

Minor in Applied Mathematics

Objectives:

This minor is designed to allow a student not majoring in mathematics to

learn techniques of applied mathematics and to be exposed to a variety of modeling techniques. Students are expected to have completed one of the calculus sequences MATH 106/107, MATH 131/132, or HONR 107/108 to be eligible.

Competencies, Knowledge, or Skills to be Achieved:

A student who completes this minor will have a sound foundation in techniques of linear algebra and differential equations and will have utilized these techniques in at least one area of application.

Structure of the Minor:

1. Required courses: (9 or 10 credit hours)

MATH 232 or MATH 234

MATH 240

MATH 470

2. Electives (6 credit hours)

Choose two from among: MATH 343, MATH 344, MATH 381, MATH 382, or STAT 361

Total Credit Hours Required — 15 or 16

Minor in Applied Statistics

Objectives:

A minor in Applied Statistics will provide students the opportunity to obtain a sound background in practical statistical skills necessary for employment in business, industry, and government.

Competencies, Knowledge, or Skills to be Achieved:

A student who completes this minor will have had the opportunity to develop a variety of statistical tools for analyzing data. The student will make extensive use of statistical software packages and will have the opportunity to apply techniques of statistical analysis in at least one area of application.

Structure of the Minor:

1. Required courses: (9 credit hours)

STAT 361 Introduction to Probability and Statistics

STAT 366 Applied Statistics

STAT 461 Data Analysis

2. Electives (6 credit hours)

Choose one of these two sequences:*

PSCI 308 and PSCI 393

PSYC 201 and PSYC 203

Total Credit Hours Required — 15

Mathematics and Computer Science Laboratories

The Mathematics Laboratory provides personal tutorial assistance for students having difficulties with freshman and sophomore level mathematics course work. Assistance is provided during the normal working day and during evening study periods. This facility serves as a source of additional materials — worksheets, workbooks, texts, journals, etc. — which complement classroom

work.

The Computer Laboratory housed in the department provides a network of DECstation 5000s which run Ultrix, a version of Unix, and a windowing system, MOTIF. This facility provides access to a variety of high-level programming languages, advanced mathematical software, the campus-wide vax network *citnet*, and the Internet.

Mathematics Course Descriptions

MATH 105 *Finite Mathematics* Three Credit Hours

Prerequisites: Two years of high school algebra

An introduction to finite mathematics with an emphasis on applications and formulation of problems in mathematical language. Topics include: matrices, linear programming, financial models, probability, and statistics. The course includes work using a computer software package.

MATH 106 *Applied Calculus I* Three Credit Hours

Prerequisite: Two years of high school algebra

Required for B.A. degree in chemistry and B.S. degree in biology.

An introduction to the calculus of polynomials, rational functions, exponential and logarithmic functions with an emphasis on applications to business, and the life and social sciences.

MATH 107 *Applied Calculus II* Three Credit Hours

Prerequisite: MATH 106

Required for B.A. degree in chemistry and B.S. degree in biology.

A continuation of the calculus introduced in MATH 106. Topics include: techniques of integration, applications of integrals, improper integrals, partial derivatives and applications, and a brief introduction to double integrals.

MATH 119 *College Algebra and Trigonometry* Four Credit Hours

A modern treatment of the essential topics of college algebra and trigonometry. Offered for students whose mathematics requirement begins with calculus and whose background has been determined by the Department of Mathematics and Computer Science to be inadequate. *Any student who has completed MATH 119 and changes to a non-science major must complete MATH 106 to satisfy graduation requirements. The course involves work using a graphics calculator.*

MATH 131 *Analytic Geometry and Calculus I* Four Credit Hours

Prerequisite: One of MATH 119 with a grade of "C" or better, a satisfactory score on the placement exam, or approval of the department head.

Required for B.S. degrees in chemistry, computer science, civil and electrical engineering, education (mathematics), mathematics, and physics, and for the B.A. degree in mathematics.

Limits, derivatives, applications of the derivative, antiderivatives and definite integrals.

Students who complete MATH 131 and change to a major which does not require MATH 132 must complete one additional MATH course. This course may not be MATH 106.

MATH 132 *Analytic Geometry and Calculus II* Four Credit Hours

Prerequisite: MATH 131 with a grade of "C" or better or HONR 107 with a grade of "C" or better

Required for B.S. degrees in chemistry, computer science, civil and electrical engineering, education (mathematics), mathematics, and physics, and for the B.A. degree in mathematics.

Applications of the integral, transcendental functions, techniques of integration, series and sequences of real numbers, Taylor series, and power series.

MATH 206 *Introduction to Discrete Structures* Three Credit Hours

Prerequisite: One semester of calculus

Required for B.S. degrees in computer science and mathematics and B.A. degree in mathematics.

Set algebra including relations and functions, propositional and predicate logic, combinatorics, and graphs and applications of these to various areas of computer science.

MATH 231 *Analytic Geometry and Calculus III* Four Credit Hours

Prerequisites: MATH 132 or HONR 108

Required for B.S. degree in chemistry, engineering, mathematics, and physics, and for the B.A. degree in mathematics.

The analytical geometry of two and three dimensions, the differential and integral calculus of functions of two or more variables, and vector differential calculus.

MATH 232 *Differential Equations* Three Credit Hours

Prerequisite: MATH 107 and approval of department head, or MATH 132, or HONR 108

Required for B.S. degrees in chemistry, mathematics, and for the B.A. degree in mathematics.

Differential equations of the first order and degree, linear differential equations of higher order, miscellaneous differential equations, series solutions of differential equations, and applications.

MATH 234 *Applied Engineering Mathematics I* Four Credit Hours

Prerequisite: MATH 231

Required for B.S. degrees in civil and electrical engineering, and physics.

An integrated course in linear algebra and differential equations. Topics include: differential equations of the first order and degree, linear differential equations of higher order, systems of differential equations, the Laplace transform, vector spaces, bases, linear transformations, systems of linear equations algebra of matrices, and determinants.

MATH 240 *Linear Algebra* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

Required for B.S. degrees in computer science and mathematics and for the B.A. degree in mathematics.

Systems of linear equations, algebra of matrices, inverses, determinants, vector spaces with emphasis on Euclidean vector spaces, bases, subspaces, transformations, eigenvalues and eigenvectors, and quadratic forms.

MATH 303 and *Modern Algebra* Three Credit Hours

MATH 304 *I and II* Each Semester

Prerequisites: For MATH 303: MATH 206 and MATH 240. For MATH 304: MATH 303.

MATH 303 required for B.S. degrees in mathematics and education (mathematics), and for the B.A. degree in mathematics.

MATH 304 is an approved (Mathematics) elective for B.S. mathematics students in the pure mathematics option.

A two semester sequence in the algebraic structures which lie at the foundations of many areas of modern mathematics. Topics chosen from: theory of groups, rings, integral domains, and fields, coding theory, Galois theory, modules, and Euclidean constructions.

MATH 305 *Modern Geometry* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

Special topics from axiomatic geometries. Topics include: Euclidean geometry, projective geometry, non-Euclidean geometry, and metric projective geometry.

MATH 318 *Numerical Analysis* Three Credit Hours

Prerequisites: MATH 343 and MATH 232 or MATH 234, or approval of department head.

Approximation theory, roots of algebraic and transcendental equations, iterative methods, interpolation and approximation, numerical solution of differential equations, and mathematical methods for the computer.

MATH 335 *Applied Engineering Mathematics II* Three Credit Hours

Prerequisite: MATH 231, and one of MATH 232 or MATH 234

Required for B.S. degrees in electrical engineering, and physics.

Advanced topics in differential equations and multi-dimensional calculus. Topics include: power series solutions of differential equations, line and surface integrals, Fourier series, vector integral calculus, special functions, and an introduction to partial differential equations.

MATH 343 *Applied Numerical Methods I* Three Credit Hours

Prerequisites: MATH 240 or MATH 234, and a knowledge of a programming language

Required of BS mathematics students in Applied Mathematics Option.

An introduction to numerical methods. Topics include: floating-point computation, finding zeros of functions, direct methods for solving systems of linear equations, interpolation, and numerical differentiation and integration.

MATH 344 *Applied Numerical Methods II* Three Credit Hours

Prerequisite: MATH 343, and one of MATH 232 or MATH 234

Required of BS mathematics students in Applied Mathematics Option.

A further study of numerical methods. Topics include: approximation, numerical solutions of ordinary differential equations, iterative methods for solving systems of linear equations, eigenvalue problems, and error analysis.

MATH 381 *Deterministic Methods of Operations Research* Three Credit Hours

Prerequisites: Two semesters of calculus and one of MATH 240 or MATH 234

Required for B.S. mathematics students in Applied Mathematics Option.

The theory and applications of deterministic models of operations research. Topics include: linear programming and the simplex algorithm, transportation and assignment problems, game theory, graphs and network flows, dynamic programming, and sensitivity analysis.

MATH 382 *Probabilistic Methods of Operations Research* Three Credit Hours

Prerequisites: Two semesters of calculus and one semester of statistics

The theory and applications of probabilistic models of operations research. Topics include: queuing models, birth and death processes, finite-state markov chains, inventory theory, forecasting, simulation, decision analysis, and reliability.

MATH 403 and *Introduction to Analysis* Three Credit Hours
MATH 404 *I and II* Each Semester

Prerequisite: MATH 231

MATH 403 is required for B.S. degree in mathematics.

MATH 404 is an approved (Mathematics) elective for B.S. mathematics students in the Pure Mathematics Option.

Sets, functions, properties of the ordered field of real numbers, topology of the reals, sequences and series, continuity, differentiation, integration, and sequences and series of functions.

MATH 405 *Mathematical Statistics* Three Credit Hours

Prerequisites: MATH 132 and STAT 361

Axioms of probability, combinatorial probability, random variables, distribution functions, law of large numbers, central limit theorem, estimation, maximum likelihood methods, hypothesis testing, confidence intervals, and non-parametric methods.

MATH 411 *Number Theory* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

The Euclidean algorithm, prime and composite integers, elementary Diophantine equations, Pythagorean triples, Euler's phi-functions, congruences, Euler-Fermat theorems, exponents and primitive roots, and quadratic residues.

MATH 412 *History of Mathematics* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

A survey of the concepts and methods of mathematics from the time of the ancients to the present. The course includes a research paper on some major mathematician or body of mathematics.

MATH 414 *Topology* Three Credit Hours

Corequisite or Prerequisite: MATH 303

Sets, functions, topological spaces, continuity, metric spaces, compactness, connectedness, and separation axioms.

MATH 422 *Complex Variables* Three Credit Hours

Prerequisite: MATH 231

Topics from complex function theory: complex differentiation and integration, Cauchy theorem, complex series and uniform convergence, harmonic functions.

MATH 470 *Mathematical Models and Applications* Three Credit Hours

Prerequisite: MATH 232 or 234

Required for B.A. degree in mathematics and B.S. mathematics students in Applied Mathematics Option.

An introduction to the theory and practice of building and analyzing mathematical models for real world situations encountered in the social, biological, and environmental sciences.

MATH 480 *Readings in Mathematics* Three Credit Hours

Prerequisite: Permission of the instructor

Directed reading on assigned topics in mathematics. The course includes weekly conferences with the instructor and a formal paper. Since the content of the course may change, a student may repeat the course for credit with the consent of the department head.

MATH 490 *Topics in Mathematics* Three Credit Hours

Prerequisite: Permission of the instructor

Selected topics in mathematics. The offering of this course will depend upon the interest of the students, the availability of an instructor, and approval of the department head. Since the content of the course may change, a student may repeat the course for credit with the consent of the department head.

MATH 499 *Senior Research Project* Three Credit Hours

Prerequisite: exceptional ability and background, and approval of department head

A research project with a required formal paper. Recommended for students planning graduate work. Approval for enrollment based on the acceptance of a written proposal by the instructor and approval of the Department Head.

Statistics Course Descriptions

STAT 160 *Statistical Methods* Three Credit Hours

Required of all biology majors; open to others. Not open to Mathematics or Computer Science Majors.

Formerly MATH 160.

An elementary treatment of probability and statistical concepts. Topics include: data collection, descriptive statistics, measures of central tendency and dispersion, normal and binomial distributions, hypothesis testing, correlation and linear regression. Emphasis will be placed on understanding statistical concepts, experimental design, and interpretation of statistical results. A statistical package will be introduced.

STAT 361 *Introduction to Probability and Statistics* Three Credit Hours

Prerequisites: MATH 131 or MATH 106

Required of all mathematics and computer science majors.

An introduction to probability and statistical concepts. Topics include: frequency distributions, measures of central tendency and dispersion, probability rules, probability distributions, sampling distributions, hypothesis testing, analysis of variance, correlation, and regression. A statistical package will be introduced.

STAT 366 *Applied Statistics* Three Credit Hours

Prerequisite: STAT 361 or BADM 205

A course in applied statistics covering practical statistical methods. Topics include: comparisons of populations, methods of testing the independence of two variables, statistical methods of verifying or rejecting distributional assumptions, analysis of variance, simple linear regression, and certain non-parametric procedures. Students will obtain experience with statistical packages.

STAT 461 *Data Analysis* Three Credit Hours

Prerequisite: Previous Statistics Course

An introduction to graphical and exploratory analysis of data with extensive use of familiar statistical packages such as MINITAB. Topics include: analysis of variance, two-way designs with interaction, multiple regression models, and basic nonparametric procedures.

Computer Science Course Descriptions

CSCI 110 *Microcomputer Applications* Three Credit Hours

Required for all business administration majors.

This course is intended for students having little or no computer experience.

An introduction to computer systems and computer applications is presented in an IBM environment. Available software packages in the areas of word processing, database management, spreadsheets, and communications are introduced with applications in management and social sciences.

Credit not allowed for both CSCI 110 and CSCI 115.

CSCI 115 *Introduction to Computer Applications* Three Credit Hours

The course is intended for students having little or no experience with computers. An introduction to the major components of a microcomputer system is presented in a Macintosh environment. The fundamentals of word processing, spreadsheets, macros, and production graphics are introduced with applications in finance and science.

Credit not allowed for both CSCI 110 and CSCI 115.

CSCI 201 *Introduction to Computer Science I* Four Credit Hours

Required of all mathematics and computer science majors.

No previous computer programming experience is needed for this course.

An introduction to problem solving and algorithm development using PASCAL. Topics include: computer organization, operating systems, structured programming, and program modularization. Assignments involve designing, coding, debugging, and documenting computer programs.

Lecture: three hours; laboratory: two hours.

CSCI 202 *Introduction to Computer Science II* Four Credit Hours

Prerequisite: CSCI 201; prerequisite or corequisite MATH 206.

Required for B.S. degree in computer science.

A continuation of the material covered in CSCI 201. Emphasis is placed on the development of a disciplined approach to program development and the enhancement of problem solving skills. Topics include: data abstraction, recursion, linked data structures, stacks and queues, and top-down development of programs.

Lecture: Three hours; laboratory: two hours.

CSCI 205 *Programming in C with Unix* Three Credit Hours

No previous computer programming experience is needed for this course.

An introduction to problem solving and algorithm development using C. Topics include: computer organization, the Unix operating system, structured programming, and program modularization. Assignments involve designing, coding, debugging, and documenting computer programs.

CSCI 208 *Introduction to COBOL* Three Credit Hours

No previous computer programming experience is needed for this course.

The fundamentals of COBOL programming with emphasis on file manipulation. Assignments involve designing, writing, and debugging programs with application in business or other data processing environments.

CSCI 216 *Management Information System* Three Credit Hours

Prerequisite: CSCI 110 or approval of the instructor

Computer-oriented information systems. Program construction in dBASE with applications in the management and social sciences is presented in a microcomputer environment on the IBM computer. Topics include: data organization and collection, file organization, sort and search techniques, and on-line information retrieval methods and processes.

The course is designed as a follow-up to CSCI 110.

CSCI 262 *Computer Organization and Programming* Three Credit Hours

Prerequisites: CSCI 202 and MATH 206

Required for a B.S. degree in computer science.

An introduction to computer architecture and assembly language programming with an emphasis on the latter. Relationship of the conventional machine level of a modern computer system with its other layers. Topics chosen from: addressing, machine instructions, I/O, subroutines, parameters, recursion, stacks, coroutines, exceptions, interrupts, number systems and arithmetic, and the physical, digital, and the microprogramming levels.

CSCI 315 *Data Structures* Three Credit Hours

Prerequisites: CSCI 202 and MATH 206

Required for B.S. degree in computer science.

Formal specification of abstract data types, implementation of these and analysis of algorithms. Topics include list and set representation methods, trees and graphs. Data structures used include: arrays, queues, binary trees, hash tables, priority queues, search trees, balanced trees.

CSCI 320 *Database Design and File Structures* Three Credit Hours

Prerequisites: CSCI 202 and MATH 206

Required for B.S. degree in computer science.

An introduction to the logical and physical structures of computer database systems. Topics include: data models, query languages, relational database design, database constraints, and file structure.

CSCI 355 *Programming Languages* Three Credit Hours

Prerequisite: CSCI 315 and CSCI 262

Required for B.S. degree in computer science.

Programming language concepts and constructs with emphasis on the run-time behavior of programs. Topics include: imperative, functional, logic and object-oriented programming paradigms, language syntax and semantics, and global properties of programming languages including scope, parameter passing, storage allocation and the binding time of constituents.

CSCI 365 *Programming in C and C++* Three Credit Hours

Prerequisite: CSCI 315

An introduction to the object oriented programming philosophy and a detailed coverage of programming in C++.

CSCI 386 *Applied Operations Research* Three Credit Hours

Prerequisites: One of CSCI 110 or CSCI 115, one semester of calculus, and one of STAT 160 or BADM 205

An introduction to the application of quantitative techniques to the managerial decision-making process. The major mathematical models associated with operations research are presented. Topics include: linear programming, the transportation problem, network analysis, queuing theory, inventory theory, and forecasting.

The course is applications oriented, and the model building process is emphasized. Students use applications software to solve realistic problems.

CSCI 405 *Operating Systems and Computer Architecture* Three Credit Hours

Prerequisites: CSCI 315 and CSCI 262

Required for B.S. degree in computer science.

An introduction to the concepts of modern operating system design and the architectural features of modern computer systems, and a study of the implementations of these components in actual operating systems. Topics include: data structures and algorithms to support: process control, concurrency, and scheduling; memory management, including virtual memory architectures; I/O and file management; and networks and distributed systems.

CSCI 412 *Principles of Compiler Design* Three Credit Hours

Prerequisite: CSCI 355

A study of the component operations of a compiler, including lexical analysis, syntax analysis, scope analysis, and code generation, and a discussion of related implementation issues. A significant part of the course will be a project to develop a compiler for a simplified programming language.

CSCI 420 *Software Engineering* Three Credit Hours

Prerequisite: CSCI 315

An introduction to current techniques used in large-scale software development. Topics include: requirements analysis, functional specification, systems design, implementation testing, and maintenance.

The course includes the organization, management, and development of a large scale software group project.

CSCI 450 *Formal Languages and Automata* Three Credit Hours

Prerequisites: MATH 206 and CSCI 202

An introduction to analytical methods and techniques used in the study of computer science. Topics include: languages and operations, finite automata and regular sets, context-free grammars, pushdown automata, Turing machines and the languages corresponding to them, other classes of languages (linearly bounded, context-sensitive), and the Chomsky hierarchy.

CSCI 455 *Artificial Intelligence Techniques* Three Credit Hours

Prerequisite: CSCI 355

A survey of artificial intelligence concepts. Topics chosen from: knowledge representation, search strategies, logical and probabilistic reasoning, learning, natural language understanding, expert systems, and computer vision.

LISP and PROLOG are used to illustrate implementation of the concepts.

CSCI 490 *Topics in Computer Science* Three Credit Hours

Prerequisite: Permission of the instructor

Selected topics in computer science. The offering of this course will depend upon the interest of the students, the availability of an instructor, and approval of the department head. Since the content of the course may change, a student may repeat the course for credit with the consent of the department head.

CSCI 491 *Internship* Three Credit Hours

Prerequisite: Senior Standing

Open to senior computer science majors with a CSCI GPA of at least 2.5.

This course gives senior students real-world work experience to complement the classroom education they have already received. Interns will learn about the variety of issues involved in developing, implementing, and managing computing resources in a real-world setting. Interns will spend ten to twelve hours per week in an area business working alongside an experienced computing professional or as part of a development team.

CSCI 499 *Senior Research Project* Three Credit Hours

Prerequisite: approval of department head

A research project with a required formal paper. Recommended for students planning graduate work. Enrollment based upon a written proposal accepted by the instructor, and approved by the department head.

Department of Military Science

Department Head: Colonel Trez

Professor: Colonel Trez

Assistant Professors: Majors Davis, Chandler, Rennebaum, and Deihl, and Captains Thompson, Hobby, Robertson, and Thrasher

The Army ROTC program of instruction at The Citadel is geared toward teaching "hands on skills" that are required of the new second lieutenant in the active Army, Army Reserve, or Army National Guard. Instruction at all levels centers around leadership. The program includes instruction in basic combat techniques, physical training, weapons, general military subjects, tactics, and Army opportunities. Selected cadets also have the opportunity to attend the Army's Airborne, Air Assault, Mountain Climbing and the Northern Warfare Course in Alaska, as well as to serve as "Third Lieutenants" with an active Army unit for two to four weeks in the Cadet Troop Leadership Training Program. More than 100 cadets participate in these programs each year with a 98% graduation rate.

Military science is a four-year program of instruction, divided into a two-year basic program and a two-year advanced program. The first year (Military Science I) addresses the role of the individual soldier through instruction and practical training in the areas of physical training, marksmanship, first aid, map reading, U.S. weapons, and leadership. The second year (Military Science II) builds upon the first, through the development of more advanced individual skills such as land navigation; basic individual combat techniques; and small unit tactics and leadership.

The first year of the advanced course (Military Science III) is dedicated to preparing the contracted cadets for their performance and competitive evaluation at the six-week Advanced Camp which takes place during the Summer between their Junior and Senior years. The curriculum focuses on instruction and practical training exercises in advanced land navigation, individual military skills, the principles and techniques of squad and platoon operations, the principles of organizational leadership, communications, fire support, U.S. Army weapons systems, and leading physical fitness training. At the conclusion of the Junior year, those cadets who have applied for and have been selected for contract will attend the Advanced Camp at Fort Bragg, North Carolina or Fort Lewis, Wash-

ington. Camp is based upon performance-oriented training and continuous leadership potential evaluation. Each cadet's evaluation is a principal determinant in his being chosen for Regular Army, Active Duty and his choice of Branch. Cadets interested in receiving a contract must complete MLTY 301, 302, 401, and 402.

The final year of the advanced program (Military Science IV) consists of instruction in solving contemporary leadership problems, the principles of military justice, the techniques of military writing, the evolution of current tactics, pre-commissioning seminars, and a review of military professionalism and ethics. The beginning of the senior year is the final opportunity to seek a contract and pursue a commission.

A prerequisite for entry into each level of Military Science instruction is the successful completion of the previous semester's course of instruction. While transfer credit may be granted, no transfers will be accepted without prior written approval of the department head (PMS). After the sophomore year, a transfer into Army ROTC will be permitted only if the transferring student wishes to pursue an Army commission.

Cadets seeking a commission as Second Lieutenants in the United States Army are required to successfully complete selected Professional Military Educational courses in 5 areas of study: English, History, Human Behavior, Computer Literacy and Math. The Core Curriculum satisfies the PME requirement for English (written communications) and Math. One three-hour course is required in each of the other areas of study listed above. Although not required, cadets are highly encouraged to take courses in Management and National Security Studies. Cadets enrolling in Military Science are provided a consolidated list of all academic courses offered by The Citadel that satisfy the Professional Military Education Requirement.

Army Course Descriptions

MLTY 101	<i>Introduction to the Army and Army Weapons</i>	One Credit Hour
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The first semester lays the foundation for the next four years of instruction. It concentrates on building a cadet's confidence in himself, Army weapons and equipment. It begins with an explanation of ROTC and the organization of the U.S. Army. The highlight of the semester is qualification with the M-16 rifle. The remaining time trains each cadet on first aid skills, written communications, the customs and courtesies of the U.S. Army, and a physical fitness testing.

MLTY 102	<i>Introduction to Leadership and Army Weapons</i>	One Credit Hour
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The cadet is taught the theory of leadership, concentrating on the traits of a

leader and the principles of leadership. The second block of instruction provides the cadet with the opportunity to handle and operate U.S. Army Weapons. Additionally, one block of instruction centers around introduction to map reading. The semester culminates with a physical fitness test.

MLTY 201 *Leadership, Military Skills and First Aid* Two Credit Hours

The cadet is trained on basic military map reading, land navigation, first aid, military writing, and leadership. Leadership study builds on the first year and examines different leadership styles. Physical fitness is again tested.

MLTY 202 *Operations and Tactics, Professional Knowledge Subjects, and Radio Communication* Two Credit Hours

The second semester begins with basic individual combat techniques and squad offensive and defensive operations. Instruction is given on oral communication, and cadets present a briefing. Further instruction is given on Professional Knowledge subjects and radio communication. The semester culminates with the physical fitness test.

MLTY 301 *Leadership Theory, Military Skills and Branches of the Army* Three Credit Hours

The curriculum for the Junior year is directed at preparing each cadet for his performance at Advanced Camp. In the first semester, the cadet receives additional instruction in leadership, nuclear, biological, and chemical warfare, land navigation, basic tactics, common tasks, and first aid. Two 24-hour field training exercises, 8 one-hour labs, monthly physical fitness tests, and weekly remedial PT round out the training for the contracted cadets.

MLTY 302 *Squad and Platoon Tactics, Land Navigation, and Advanced Military Skills* Two Credit Hours

The second semester concentrates on final preparation for Advanced Camp. The cadet learns advanced Squad and Platoon Tactics, Land Navigation, and Advanced Military Skills. Cadets who have earned contracts and will attend Advanced Camp will participate in additional leadership training and evaluation, physical training, four field exercises, and 20 one-hour labs.

MLTY 401 *Contemporary Military Subjects, Ethics and Professionalism and Professional Military Development* Three Credit Hours

The main focus of the Senior year is to prepare the cadet for his first assignment as a Second Lieutenant. The cadet learns how to plan and conduct military training. He also receives instruction on the Army logistical system and

precommissioning requirements. A highlight of this semester is a block of instruction examining the ethics and professionalism of the officer corps. Those cadets that successfully completed Advanced Camp will further their leadership development by acting as trainers and leadership evaluators for the MS 301 and MS 302 contracted cadets.

MLTY 402 *Professional Military Development* Two Credit Hours

The cadet's final semester centers around military law, and additional skills required as a professional officer. Each cadet prepares and presents several oral presentations. The capstone of the Senior year is pre-commissioning activities which represents the cadet's final preparation before being commissioned as an officer in the United States Army.



Department of Modern Languages

Department Head: Emory

Associate Professors: Staley, Emory, McRae, Andrade, Gurganus

Assistant Professors: Del Mastro, Bahk, Toubiana, Skow-Obenaus

Knowledge of a foreign language is now recognized as an essential element of a liberal arts education, as well as a vital asset in a global society. The importance of being able to communicate effectively with the millions of non-English speakers in the areas of commerce, government, science and the arts cannot be over-emphasized.

The sensitivity to other cultures which is gained through careful study of foreign languages and peoples is likewise of an immeasurable importance today.

While core curriculum foreign language courses stress the four skills—reading, writing, listening and speaking—emphasis is put on oral/aural proficiency and effective interpersonal communication. The culture of the people who speak the target foreign language is also an important aspect of each course.

The language minor (in French, German or Spanish) leads the student to some understanding of the field of study and to an enhanced degree of competence with its methods of inquiry.

The language major is designed to enable the student to perfect his fluency in the language and to acquire an in-depth knowledge of the civilization and literature which are manifestations of that language.

The major is a flexible one and has been shown to be excellent preparation for students desirous of pursuing careers in many professions or of continuing their education in graduate, business, law and medical schools.

Plan of Undergraduate Major

Twenty-seven credit hours of course work are required in one language at the 300- and 400-levels. For all majors these required courses include 301 and 302. In addition, LING 300, *Introduction to Linguistics*, and one of the two courses, MLNG 410 or 420, are also required of all language majors, for a total of thirty-three credit hours minimum.

Note that students who are qualified may by-pass Elementary (101-102) and Intermediate (201-202) courses in their chosen language. By-passed courses will be included on The Citadel transcript as if they had been completed at The Citadel on a Pass/Fail basis.

Minors in French or German or Spanish

Objectives:

A minor in French or German or Spanish will lead students to a deeper understanding of the culture of the people who speak that language and, at the same time, will afford them the opportunity to approach the degree of fluency and linguistic sophistication in the language necessary to communicate effectively with native speakers. The requirements of the Core Curriculum, while they provide a critical and necessary beginning, cannot hope to furnish students with the degrees of comprehension, fluency, and linguistic proficiency necessary to allow them to communicate effectively or to compete in the international arena with native speakers.

Competencies, Knowledge, or Skills to be Achieved:

The student who completes this minor will develop aural comprehension and oral proficiency in the language which are not possible to impart to students through the intermediate level and knowledge of culture and literature which will lead to a deeper appreciation of people and institutions.

Clearly, a student may not both major and minor in the same language; however, a major in one language and a minor in another is not only acceptable but (in certain combinations) even desirable.

Structure of the Minor:

1. Required Courses

- a. 301 and 302 (in the chosen language)
- b. at least one 400-level course (in the chosen language)

2. Electives

Two advanced courses (in the chosen language), i.e., courses numbered 300 and above (excluding LING 300 and MLNG 410 and 420)

Total Credit Hours Required — 15 semester hours of course work in one language at the 300-level and above

Credit for Study Abroad

The Citadel presently offers a summer program for French, German, and Spanish in countries where the respective language is spoken. Credit may be obtained for courses taken abroad during the summer or the regular school year. Such work must have the prior approval of the head of the Department of Modern Languages, from whom details of this option are available.

Core Curriculum Language Requirement

Courses in *languages* must be taken consecutively. That is, a course numbered 101 precedes and is prerequisite to 102; 102 is prerequisite to 201; and 201 is prerequisite to 202.

Graduation requirements in languages may be satisfied only by appropriate sequences of courses in the same language. Thus, French 101-102 must be followed by French 201-202 (not German, Russian, or Spanish 201-202); and so forth.

General Courses

MLNG 100 : *English as a Second Language* Three Credit Hours

Intensive work in oral and written communication in English. Basic writing skills development. Course credit will not be applied to credit hours required for graduation, and the course may be repeated until a satisfactory grade has been achieved. Enrollment limited to non-native speakers of English. Must be taken Pass/Fail.

MLNG 410 *European Literary Movements,
12th Century to 1789* Three Credit Hours

An extensive, in-depth survey of influential literary movements on the Continent, beginning with the High Middle Ages and early Italian Renaissance, continuing through the late Renaissance, the Golden Age in Spain, the Classical Age, up to the end of the Age of Enlightenment. While the focus of the course will be on major writers and representative works of each period (e.g., *La Chanson de Roland*, Boccaccio, Cervantes, Racine, Rousseau, Goethe), the significant intercultural borrowings and literary and artistic cross-fertilization among the intelligentsia of France, Germany, Italy and Spain will be studied and put in their proper sociological contexts. No prerequisite.

MLNG 420 *European Literary Movements,
1789-Present* Three Credit Hours

This course begins at the dawn of the Romantic movement on the Continent, and continues through the important movements of Realism, Naturalism, Symbolism, Surrealism, and Existentialism. Significant works of writers such as Hugo, Flaubert, Zola, Galdós, Rilke, Mann, Proust, D'Annunzio, Pirandello, Sartre and Hesse, among others, will be studied against the background of their times. No prerequisite.

LING 300 *Introduction to Linguistics* Three Credit Hours

Open to all students; required for language majors.

A survey of the history of languages and linguistics and a study of the

components of human speech: phonetics, phonology, morphology; grammar, syntax, semantics; semiology, writing, literature. No prerequisite.

Language and literature courses numbered 300 and above in a given language have, unless otherwise stated, 202 in that language as a prerequisite.

French Language and Literature Course Descriptions

FREN 101 *Elementary French Communication I* Three Credit Hours

Basic functional communication on daily activities and immediate environment in the present and past. Emphasis on understanding, speaking, reading, and writing simple French, pronunciation, and vocabulary expansion. Cross-cultural similarities and differences stressed through use of videocassettes. Course conducted primarily in French. *Language laboratory required.*

FREN 102 *Elementary French Communication II* Three Credit Hours

Prerequisite: FREN 101 or placement

Continued development of basic communication skills: understanding, speaking, reading, writing in increasingly more complex situations, including pronouns, descriptions and actions in the past and future, and conjectures. Cross-culture similarities and differences stressed through use of videocassettes. Course conducted primarily in French. *Language laboratory required.*

FREN 201 *Intermediate French Communication* Three Credit Hours

Prerequisite: FREN 102 or placement

Functional use of French in different sociocultural contexts. Extensive oral and written practice with vocabulary and structures vital to expressing increasingly complex ideas. Course conducted in French. *Language laboratory required.*

FREN 202	<i>French Reading, Conversation and Composition</i>	Three Credit Hours Each Semester
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Prerequisite: FREN 201 or placement

Systematic development of reading and writing skills through cultural and literary texts. Oral communication skills development through discussions of readings and of videomagazine from French television. Course conducted in French.

FREN 203 *Intermediate French
Composition and Conversation* Three Credit Hours

Prerequisite: FREN 102 (or equivalent) and permission of instructor

An intensive, systematic study of grammar and development of speaking and writing skills through readings, discussions, and compositions. May be taken in lieu of FREN 201. Offered only during summer program in Europe.

FREN 204 *Intermediate French Culture* Three Credit Hours

Prerequisite: FREN 102 (or equivalent) and permission of instructor.

Participation in cultural activities (excursions, visits to museums, theatrical performances, movies, etc.) required. Weekly journal of cultural and cross-cultural experiences. May be taken in lieu of FREN 202. Offered only during summer program in Europe.

FREN 301 *Advanced French Conversation* Three Credit Hours

Development of skill and ease in speaking correct, idiomatic French at an advanced level. Audio and video cassettes used for aural comprehension. Pronunciation exercises. Required of all French majors and minors. Course not open to students with native-level proficiency.

FREN 302 *Advanced French Composition* Three Credit Hours

Detailed study, analysis and practice of written French based upon selected literary texts. Study of grammar, syntax and vocabulary as necessary to achieve coherent, idiomatic compositions related to the readings. Required of all French majors and minors.

FREN 303 *French Civilization* Three Credit Hours

A broad survey of French culture (architecture, painting, sculpture, music, cuisine, etc.) and society from prehistoric times to World War I.

FREN 304 *Contemporary French and Francophone Civilization* Three Credit Hours

A study of all aspects of French civilization in the Twentieth Century (social and cultural mores and values, art, industry, economy) in France and throughout the French-speaking world.

FREN 307 *Business French* Three Credit Hours

Prerequisite: FREN 202 or permission of instructor

Introduction to the language of economics, banking, commerce, correspondence, sales, import-export, transportation, and corporations in the French-speaking world.

FREN 390 *Special Topics in Contemporary French Culture* Three Credit Hours

Prerequisite: FREN 202 and permission of instructor

A survey of current trends in art, architecture, music, cuisine, film, and literature, as well as in popular culture, in France. Visits to museums, concerts, theater, etc. Weekly journal of cultural and cross-cultural experiences. Offered only during summer program in Europe.

FREN 391 *Special Topics in Contemporary French Usage* Three Credit Hours

A course designed to acquaint students with the French of today as a language in evolution; particular attention to current usage of slang, jargon, and neologisms. Offered only during summer program in Europe.

FREN 421 *French Literature of the Middle Ages and Renaissance* Three Credit Hours

A study of representative works composed in the Middle Ages and Renaissance in modern French translation.

FREN 422 *French Classicism and Enlightenment* Three Credit Hours

A study of the principal writers of the seventeenth and eighteenth centuries in France. Major figures: Molière, Corneille, Racine, Pascal, La Fontaine, La Bruyère, Voltaire, Diderot, Rousseau.

FREN 423 *French Literature of the Nineteenth Century* Three Credit Hours

A study of the works representative of Romanticism, Realism, Naturalism, and Symbolism, with special emphasis on developments in the novel and lyric poetry.

FREN 424 *French Literature of the Twentieth Century* Three Credit Hours

A study of the major writers and literary movements—Surrealism, Modernism, Existentialism, Theatre of the Absurd, Nouveau Roman—from the turn of the century to the present.

FREN 450 *Undergraduate Seminar: Studies in Special Topics* Three Credit Hours

Investigation and analysis of the works of one notable French author or of some other literary, linguistic or cultural topic. The significance of the topic studied to Francophone civilization and/or literature in general will be emphasized. This course may be repeated provided that the subtitle is not duplicated.

FREN 490 *Advanced Grammar, Syntax and Translation* Three Credit Hours

Prerequisite: FREN 302 or permission of instructor

Development of linguistic skills necessary for fluent idiomatic writing in French, from colloquial to more sophisticated styles, including translation from English to French. Required of all French majors.

German Language and Literature Course Descriptions

GERM 101 *Elementary German I* Three Credit Hours

Introduction to vocabulary, grammar, syntax, idiom, and culture. Development of skills critical to foreign-language mastery: listening, speaking, reading, writing, and viewing. Course conducted primarily in German. Practice with tapes required.

GERM 102 *Elementary German II* Three Credit Hours

Prerequisite: GERM 101 or placement

Progress in vocabulary, grammar, syntax, and idiom. Increased emphasis on student communication. Course conducted primarily in German. Practice with tapes required.

GERM 201 *Intermediate German I* Three Credit Hours

Prerequisite: GERM 102 or placement.

Completion of basic grammar and syntax. Increased emphasis on reading, idiomatic usage. Course conducted in German. Practice with tapes required.

GERM 202 *Intermediate German II* Three Credit Hours

Prerequisite: GERM 201 or placement

Expansion and fine tuning of grammar. Films and literary texts serve as basis for discussion and substantial composition. Course conducted in German. N.B.: Upon successful completion of the elementary and intermediate courses, the student will be functional in a German-speaking country, i.e., he will be able to converse socially, read newspapers and magazines, enjoy a movie, order meals, and shop.

GERM 203 and *Intermediate German I Abroad* Three Credit Hours

GERM 204 *Intermediate German II Abroad* Each Semester

Prerequisite: GERM 102 (or equivalent) and permission of instructor.

Taken in lieu of GERM 201 and 202. Intensive study of grammar, development of communicative skills while in residence in Germany, Austria, or Switzerland. Offered only as a component of summer program in Europe.

GERM 301 *Advanced German Conversation* Three Credit Hours

Prerequisite: GERM 202/204 with a grade of "C" or better, or permission of the department head

Required of all German majors and minors. Not open to students with native-level proficiency. Expansion and practice of communicative skills in situational contexts from colloquial to formal. Extensive use of sound and video recordings. Student interviews and presentations.

GERM 302 *Advanced German Composition* Three Credit Hours

Prerequisite: GERM 202/204 with grade of "C" or better, or permission of department head

Required of all German majors and minors. Practice in formal writing: reviews, essays, correspondence. Study of styles of writing in exemplary texts. Practical experience with translation.

GERM 303 *German Civilization and Culture* Three Credit Hours

Survey of civilization and culture up to 1945, with emphasis on values, thought, institutions, and art. Films, slides, recordings, field trips.

GERM 304 *Postwar German Society and Culture* Three Credit Hours

Study of society and culture since 1945, focusing on political division and reunification, economy, and art (particularly New German Cinema).

GERM 307 *Business German* Three Credit Hours

Serves as a Business elective. Introduction to the language of economics, corporations, commerce, and banking. Practical experience with business translation and correspondence. Preparation for the *Prüfung Wirtschaftsdeutsch International*.

GERM 390 *Special Topics in Language and Literature* Three Credit Hours

Prerequisite: GERM 202/204 and permission of instructor

Study of language and literature while in residence in Germany, Austria, or Switzerland. Emphasis on current usage in speech and print. Discussion and composition based on activities and readings. Offered only as a component of summer program in Europe.

GERM 391 *Special Topics in Landeskunde* Three Credit Hours

Prerequisite: GERM 202/204 and permission of instructor.

Study of society and culture while in residence in Germany, Austria, or Switzerland. Emphasis on interaction with host community. Theater, concerts,

films, excursions, museum visits. Special projects tailored to student need and interest. Offered only as a component of summer program in Europe.

GERM 421 *German Literature* Three Credit Hours
 up to the Reformation

Survey of significant authors, works, genres, and movements from the earliest monastic texts through Luther's age, examined in their social and cultural context.

GERM 422 *German Literature from the* Three Credit Hours
 Baroque to Classicism

Survey of significant authors, works, genres, and movements from ca. 1500 to 1800, with emphasis on the Enlightenment, *Sturm und Drang*, and classicism.

GERM 423 *German Literature of the* Three Credit Hours
 Nineteenth Century

Survey of significant authors, works, genres, and movements, with emphasis on romanticism, *Biedermeier*, *Junges Deutschland*, poetic realism, and naturalism.

GERM 424 *German Literature of the* Three Credit Hours
 Twentieth Century

Study of select authors, e.g., Schnitzler, Thomas Mann, and Brecht, from the *Jahrhundertwende* to the present.

GERM 450 *Undergraduate Seminar:* Three Credit Hours
 Studies in Special Topics

Study of a single author or select topic in philology or culture. Students may register for this course more than once if the topic has changed.

Russian Language Course Descriptions

RUSS 101 *Elementary Russian I* Three Credit Hours
Offered only on demand.

Russian sounds and Russian writing, elementary grammar and syntax. Lab practice mandatory.

RUSS 102 *Elementary Russian II* Three Credit Hours
Offered only on demand.

Prerequisite: RUSS 101 or placement

Continuation of basic grammar and syntax, practice in oral and written expression. Lab practice mandatory.

RUSS 201 *Intermediate Russian I* Three Credit Hours

Offered only on demand.

Prerequisite: RUSS 102 or placement

Review of basic grammar, initiation of advanced grammar and structure, cultural and/or literary readings, continued practice in written and oral communication. Lab practice mandatory.

RUSS 202 *Intermediate Russian II* Three Credit Hours

Offered only on demand.

Prerequisite: RUSS 201 or placement

Advanced grammar continued, cultural and/or literary texts, written and oral communications, translation into English.

Spanish Language and Literature Course Description

SPAN 101 *Elementary Spanish Communication I* Three Credit Hours

Emphasis on practical, oral communication. Basic elements of speaking, listening, reading, and writing. Initial presentation of Hispanic culture. Mandatory practice in the language laboratory. Course conducted primarily in Spanish.

SPAN 102 *Elementary Spanish Communication II* Three Credit Hours

Prerequisite: SPAN 101 or placement

Further emphasis on oral communication. A continuation of speaking, listening, reading, and writing skills and study of Hispanic culture. Mandatory practice in the language laboratory. Course conducted primarily in Spanish.

SPAN 201 *Intermediate Spanish Communication* Three Credit Hours

Prerequisite: SPAN 102 or placement

Stress on oral communication. A continuation of speaking, listening, reading, and writing skills and study of Hispanic culture. Completion of the verb system. Mandatory practice in the language laboratory. Course conducted primarily in Spanish.

SPAN 202 *Spanish Conversation, Reading, and Composition* Three Credit Hours

Prerequisite: SPAN 201 or placement

Extensive oral and written communication based on readings and videos of Hispanic literature and culture. Course conducted primarily in Spanish.

SPAN 203 *Intermediate Spanish Composition and Conversation* Three Credit Hours

Prerequisite: SPAN 102 (or equivalent) and permission of professor

Intensive course in oral and written Spanish; to be taken in lieu of SPAN 201. Offered only during summer program in Europe.

SPAN 204 *Intermediate Spanish Culture* Three Credit Hours

Prerequisite: SPAN 102 (or equivalent) and permission of instructor

Participation in cultural activities (excursions, visits to museums, theatrical performances, bullfights, etc.) required. Weekly journal of cultural and cross-cultural experiences. Taken in lieu of SPAN 202. Offered only during summer program in Europe

SPAN 301 *Advanced Spanish Conversaton* Three Credit Hours

Conversational skills are developed through frequent discussions and group related activities, with an emphasis on oral proficiency. These skills will be further refined through frequent writing activities. Course conducted in Spanish. Not open to students with native-level proficiency, but required of all other Spanish majors and minors.

SPAN 302 *Advanced Spanish Composition* Three Credit Hours

An intense and complete overview of Spanish grammar including a review of all tenses and a thorough analysis of the subjunctive. These elements will be emphasized through frequent writing exercises, with the ultimate goal of producing grammatically correct Spanish. Course conducted in Spanish. Required of all Spanish majors and minors.

SPAN 303 *Readings in Spanish Civilization* Three Credit Hours

A broad survey of the culture of Spain (architecture, painting, sculpture, music, cuisine, etc.) and society from prehistoric times to the present. Extensive use of audiovisual materials, occasional field trips.

SPAN 304 *Readings in Spanish American
Civilization* Three Credit Hours

A general survey of the culture of Spanish America from Pre-Columbian times to the present (architecture, painting, sculpture, music, cuisine, etc., as well as social and political developments). Extensive use of audiovisual materials, occasional field trips.

SPAN 307 *Business Spanish* Three Credit Hours

Introduction to the language of economics, banking, commerce, correspondence, sales, import-export, and corporations in Spain and Spanish America.

SPAN 310 *Survey of Spanish Peninsular Literature* Three Credit Hours

A broad survey of literature in Spain from the premedieval period through major movements and representative authors to contemporary Spanish letters.

SPAN 320 *Survey of Spanish American Literature* Three Credit Hours

A broad survey of major works of Spanish America from the pre-Columbian period through major movements and representative authors to contemporary literature.

SPAN 390 *Special Topics in Contemporary Spanish Culture* Three Credit Hours

Prerequisite: SPAN 202 and permission of instructor

A survey of trends in art, architecture, music, cuisine, film, and literature, as well as in popular culture, in Spain. Visits to museums, concerts, theater, bull-fights, etc. Weekly journal of cultural and cross-cultural experiences. Offered only during summer program in Europe.

SPAN 391 *Special Topics in Contemporary Spanish Usage* Three Credit Hours

Prerequisite: SPAN 202 and permission of instructor

A course designed to acquaint students with the Spanish of today as a language in evolution; particular attention to current usage of slang, jargon, and neologisms. Offered only during summer program in Europe.

SPAN 420 *Spanish Literature of the Middle Ages and Renaissance* Three Credit Hours

The history and interpretation of the first works in the Spanish tradition. The literary history of the period will be surveyed and illustrated with selected texts.

SPAN 421 *The Golden Age: Drama and Poetry* Three Credit Hours

Surveys the masterpieces of Spain's Golden Age drama and poetry. Development of the *comedia* illustrated by selected works of Lope de Vega, Calderón de la Barca and others, including Tirso de Molina's dramatization of the Don Juan legend. The genre of the *auto sacramental* assessed through works by its major authors. Religious poetry explored through writers such as San Juan de la Cruz, and secular poetry through poets such as Góngora and Quevedo.

SPAN 422 *The Golden Age: Fiction* Three Credit Hours

A study of the fiction of the late Sixteenth and Seventeenth Centuries in the Spanish peninsula, through the character of Don Quixote and the appearance of the *pícaro*.

SPAN 423 *Nineteenth Century Literatures, of Spain* Three Credit Hours

A survey of Romanticism and its sequel, the movements of Realism and Naturalism, in the novel. Literary history of this period will be illustrated with selected texts.

SPAN 424 *Twentieth Century Literature of Spain* Three Credit Hours

Literary trends and authors since the turn of the century. This course will consider thinkers such as Unamuno and Ortega y Gasset, as well as Nobel Prize winners such as Benavente, Jiménez and Cela. García Lorca will be studied, along with current writers such as Alberti, Goytisolo and Buero Vallejo.

SPAN 425 *Contemporary Spanish American Fiction* Three Credit Hours

In-depth study of the major works of Spanish American fiction by the most important twentieth-century writers. Consideration will be given to Borges, Cortázar, Rulfo, Fuentes and García Márquez.

SPAN 426 *Contemporary Spanish American Poetry* Three Credit Hours

A study of selected Spanish American poets from Modernism to the contemporary period. The course will consider authors such as Dario, Mistral, Vallejo, Neruda and Octavio Paz.

SPAN 450 *Undergraduate Seminar:
Studies in Special Topics* Three Credit Hours

A comprehensive study and interpretation of a major author, work, period, movement—or combination thereof—from Spain or Spanish America. This course may be repeated provided that the subtitle is not duplicated.

Directed Individual Study

Directed Individual Study courses enable students with special interests, suitable preparation, and high academic standing to receive instruction and guidance in selected subjects which are not otherwise treated in the department's regularly scheduled courses of instruction. Directed Individual Study courses may not be repeated, and are open only to juniors and seniors with the assent of the instructor and the permission of the department head.

FREN 341 and	<i>French Language</i>	Three Credit Hours
FREN 342	<i>and Literature (Junior Year)</i>	Each Semester

FREN 441 and	<i>French Language</i>	Three Credit Hours
FREN 442	<i>and Literature (Senior Year)</i>	Each Semester

GERM 341 and GERM 342	<i>German Language and Literature</i> (Junior Year)	Three Credit Hours Each Semester
GERM 441 and GERM 442	<i>German Language and Literature</i> (Senior Year)	Three Credit Hours Each Semester
SPAN 341 and SPAN 342	<i>Spanish Language and Literature</i> (Junior Year)	Three Credit Hours Each Semester
SPAN 441 and SPAN 442	<i>Spanish Language and Literature</i> (Senior Year)	Three Credit Hours Each Semester

Department of Naval Science

Department Head: Betta

Professor: Betta

Assistant Professors: Bryson, Hesse, Holder, Lewis, Skinner, Sparks, Zimmerman, Johnson

The Department of Naval Science course of instruction is designed to provide young men with the basic professional knowledge and leadership skills needed to become Navy and Marine Corps officers. In the initial two years, all students receive an orientation to the various branches of the Navy and Marine Corps, followed by courses in basic naval engineering, weapon systems, leadership, and an overview of seapower.

Students may receive their final two years of instruction in either Navy or Marine Corps courses. Navy students study seamanship and the art of navigation; Marine option students study the historical development of warfare and amphibious operations. Both options conclude with practical leadership training designed as final preparation for assuming the responsibilities of a junior officer in the Navy or Marine Corps. After the sophomore year, a transfer in the Navy ROTC will be permitted only if the transferring student wishes to pursue a Navy or Marine commission.

Practical training in sailing and shiphandling and frequent visits to local Navy and Marine Corps facilities are provided to complement classroom training.

Sequence of Naval Science Courses

Fourth Class Year

All Naval cadets

NAVL 101 (Introduction to Naval Science)

NAVL 102 (Seapower and Maritime Affairs)

Third Class Year

All Naval cadets

NAVL 201 (Naval Leadership and Management I)

NAVL 202 (Naval Ships Systems I (Engineering))

Second Class Year

Candidates for U.S. Navy commissions

NAVL 301 (Navigation)

NAVL 302 (Naval Operations)

Candidates for U.S. Marine Corps commissions

NAVL 303 (Evolution of Warfare I)

NAVL 304 (Evolution of Warfare II)

First Class Year

Candidates for U.S. Navy commissions

NAVL 401 Naval Ship Systems II (Weapons)

NAVL 402 (Naval Leadership and Management II)

Candidates for U.S. Marine Corps commission

NAVL 403 (Amphibious Warfare)

NAVL 404 (The Marine Company Grade Officer)

Naval Science Course Descriptions

NAVL 101 *Introduction to Naval Science* One Credit Hour

This course provides the student with the basic understanding of the mission, organization, regulations, and broad warfare components of both the Navy and Marine Corps. Included is an overview of officer and enlisted rank and rating structures, training and education, promotion and advancement, courtesy and customs, discipline, leadership, ships' nomenclature, career opportunities in various warfare communities, and the challenges facing today's Navy and Marine Corps officers. (Navy and Marine faculty)

NAVL 102 *Seapower and Maritime Affairs* One Credit Hour

This course provides the student with a basic knowledge of seapower and maritime affairs. It is a study of the U.S. Navy from its inception during the Revolutionary War to the modern fleets of today. Chronological periods are broken down and discussed based on the following common themes: foreign policy, strategy, tactics, technological advances, interservice relationships, leadership and Anglo-American relations. (Navy and Marine faculty)

NAVL 201 *Naval Leadership and Management I* Two Credit Hours

This course provides the student with a basic understanding of the fundamental concepts and principles of naval leadership and management. Theoretical aspects of the management functions and processes are examined, and their applications to the naval profession are discussed. In addition, motivation and motivational theories, counseling techniques, and effective communicative skills are studied and applied to naval leadership and management roles. This course is taught using lectures, experimental exercises, case studies, self-study exercises, and role-playing exercises. The goal of this course is to provide students with the fundamental concepts, principles, and sources of information necessary to establish a sound basis for their initial performance and future growth as a

junior officer.

This course also provides students with the values and motivation which prepare them for service with the sense of honor and integrity required of a commissioned naval officer. (Navy faculty)

NAVL 202 *Naval Ship Systems I (Engineering)* Three Credit Hours

This course provides the student with a basic understanding of the types, structures, and purposes of naval ships. Details of ship compartmentation, propulsion systems, auxiliary power systems, interior communications, ship design, and ship stability characteristics are examined.

NAVL 301 *Navigation* Three Credit Hours

This course provides the student with a working knowledge of the theory and practice of piloting and celestial navigation. Includes radar navigation, lines of position, fixes, complete site reduction by Hydrographic Office Publication 229 and the Nautical Almanac, and a brief introduction to electronic navigation systems. Practice applications are stressed in weekly exercises. (Navy faculty)

NAVL 302 *Naval Operations* Three Credit Hours

Prerequisite: NAVL 301

This course provides the student with a detailed survey of the Rules of the Nautical Road and the theory and use of maneuvering boards for solution of relative motion problems. Also introduced are various other topics, including weather, shiphandling, and naval communications. (Navy faculty)

NAVL 303 *Evolution of Warfare I* Three Credit Hours

This course provides the student with a general knowledge of the art and concepts of warfare and its evolution from the beginning of recorded history to the present. Included are the considerations of the influence that leadership, political, economic, sociological, and technological factors have had on warfare and the theoretical principles behind modern strategy and tactics. (Marine faculty)

NAVL 304 *Evolution of Warfare II* Three Credit Hours

Prerequisite: NAVL 303

This course enables the student to acquire a working knowledge of the more practical aspects of warfare and the United States Marine Corps. The general principles of warfare addressed in NAVL 303 are considered as they relate to the small unit level. Tactical aspects of offensive combat are examined in detail. The student is given the opportunity to master skills required of the small unit leader—tactics and land navigation. Physical training is included to prepare

students for summer training at Officer Candidate School, Quantico, Virginia. (Marine faculty.)

NAVL 401 *Naval Ships Systems II (Weapons)* Two Credit Hours

This course provides the student with the basic understanding of the theory and applicable principles relating to the operation of naval weapons systems. The topics include details of radar systems, fire-control systems, (including capabilities and limitations); methods of target acquisition; identification and tracking of targets; detect, track, and engage sequence; and basics of naval ordnance; principles of electronic components, computer functions, integrated fleet capabilities, and sound energy. (Navy faculty)

NAVL 402 *Naval Leadership and Management II* One Credit Hour

This course provides the student with guidelines for assuming the duties and responsibilities as a junior Navy officer during his initial tour of duty following graduation and commissioning. In addition, this course familiarizes the student with and helps him develop an understanding of the duties and responsibilities of the junior naval officer in the following leadership areas: human resources management, personnel management, material management, and division discipline administration. This is the final course in the Naval ROTC curriculum, and it synthesizes the managerial and professional competencies developed by the students in the previous summer's at-sea training and previous naval science courses. This course provides a capstone in all major areas of naval leadership immediately prior to commissioning. (Navy faculty)

NAVL 403 *Amphibious Warfare* Three Credit Hours

This course provides the student with a basic understanding of the concept of projecting seapower ashore through use of both waterborne and helicopterborne amphibious forces. Details concerning the evolution of amphibious warfare as an element of naval power and instrument of national strategy combined with applicable principles and techniques of conducting amphibious warfare are examined. (Marine faculty)

NAVL 404 *The Marine Company Grade Officer* No Credit

This course provides the student with a basic understanding of the company grade officers responsibilities within the Marine Corps, emphasizing his role as a junior commander and staff officer, and concentrating upon command and staff relationships, effective coordination, administration, training, counseling, military justice, and other Marine officer responsibilities. (Marine faculty)

Department of Physics

Department Head: Berlinghieri

Distinguished Visiting Professor: Mehra

Professors: Berlinghieri, Hurren, Adelman, Rembiesa

Associate Professors: Briggs, Hilleke

Physics is the fundamental physical science, the foundation upon which all other physical sciences are constructed. It is a vast and comprehensive discipline which studies the entire realm of nature from the most minute particles, distances, and times imaginable to the most massive stars, the outer limits of the universe, and the eons of duration. It is particularly concerned with those aspects of nature which can be formulated in terms of principles and laws reduced to their essence and expressed in an elegant and concise mathematical form.

The Department of Physics at The Citadel provides a comprehensive curriculum leading to a Bachelor of Science degree in Physics as well as undergraduate education in basic physics designed to meet the needs of three different groups: 1) physical sciences/engineering, 2) biology/pre dentistry/premedicine; 3) business/liberal arts/education. In addition, some specialized graduate courses are available to support those pursuing advanced degrees in Education.

The department sponsors a section of The Society of Physics Students to provide fellowship for physics majors and other students of similar interests, and to make available extracurricular activities which illustrate that physics in practice is a vital and active discipline.

1. Bachelor of Science degree in Physics. This degree is designed to offer students a thorough education in physics at the undergraduate level and to prepare them to pursue graduate study in physics as appropriate to their career aspirations. Professional physicists have traditionally experienced careers in education, industry and government, but a sound knowledge of basic physics has become increasingly important to other areas of endeavor as well. For example, a strong undergraduate background in physics is considered essential to a career as a commissioned officer in one of the high-technology branches of the Armed Forces. The curriculum for the B.S. degree in physics is comprehensive and includes 54 semester hours of physics, beginning with a one-semester Introduction to Physics course followed by a three-semester basic course in Physics for Engineers and Physical Scientists, a calculus-based sequence which emphasizes fundamental principles and problem solving, and which also includes a weekly two-hour laboratory each semester. The junior and senior years include upper-division courses in Analytical Mechanics, Electricity and Magnetism, Mathematical Physics, Electronics, Thermodynamics, Optics, Modern Physics, and

Quantum Mechanics. Research Planning and Senior Research Project in the senior year give students an opportunity to apply physics to a theoretical or experimental project, or to the design and construction of apparatus.

Requirements for a Bachelor of Science degree in Physics also include five semesters of mathematics, four semesters each of English and foreign language, two semesters each of chemistry and history, and a semester of social science, as well as physical education and ROTC.

The program for physics majors retains flexibility in that a student who does not intend a profession in physics may, at the discretion of the department head, replace up to six credit hours of physics courses numbered above 300 with courses numbered above 300 in other science fields.

II. Physics courses for majors in other fields. As a service to other departments, and to meet the expectations of the college core curriculum, three separate basic physics sequences are individually designed to meet the requirements of specific groups of disciplines.

For the non-science majors, PHYS 203/253 and PHYS 204/254 (Physics for Liberal Arts Majors) constitute a survey sequence which emphasizes basic principles, with particular attention paid to the exciting developments of modern technology. For the biologist and potential physician or dentist, PHYS 205/255 and PHYS 206/256 (Physics for Biology and Premedicine) offer the basic principles, but with emphasis on the ideas and techniques which apply to these fields. For the scientist, engineer, and mathematician, and for students preparing to be secondary school teachers in General Science or Physical Science, PHYS 210/260, PHYS 211/261, and PHYS 212/262 (Physics for Engineers and Physical Scientists) cover the fundamental principles of physics using elementary calculus. PHYS 313 is a continuation of this sequence covering modern physics. Descriptive courses in elementary astronomy, ASTR 201 and ASTR 202, are provided as electives. All basic science sequences have concomitant laboratories.

Minor in Applied Physics

Objectives:

The minor in Applied Physics is designed to allow a student not majoring in physics the opportunity to learn many of the techniques of experimental physics and to obtain an exposure to the principles of modern physics.

Competencies, Knowledge, or Skills to be Achieved:

A student pursuing a minor in applied physics will become competent in the techniques of experimental physics. Skills in applied optics, electronics, solid state, laboratory and experimental techniques will be emphasized.

This minor is not approved for students majoring in Physics

Structure of the Minor:

1. Required Courses: (9 credit hours)

PHYS 211/261	4	(2nd semester calculus based physics)
PHYS 313	3	(Modern Physics)

PHYS 451 2 (Advanced Laboratory Physics)

2. *Elective Courses: (9 credit hours)*

Choose two:

PHYS 101	3	(Introduction to Physics)
PHYS 307/357	4	(Electronic Instrumentation)
PHYS 308/358	4	(Optics)
PHYS 315	3	(Analytical Mechanics)
PHYS 410	3	(Thermodynamics)
PHYS 419	2	(Research Planning)
PHYS 420	3	(Research Project)

3. *Projected Course of Study*

Students are expected to have had two semesters of calculus and physics 210/260 and 211/261 or 212/262. Those students who have taken physics 205/255, 206/256 and earned a grade of B or higher are also eligible.

Total Credit Hours Required—18 (Plus two semesters of calculus)

Physics Course Descriptions

PHYS 101 *Introduction to Physics* Three Credit Hours

Required of most freshmen majoring in physics.

An elementary course consisting of lectures on physics topics in their historical context from Galileo to the present. Covers fundamental techniques which are useful for learning this discipline. Class notes and library reading will be required.

Lecture: three hours.

PHYS 203 and PHYS 204 *Physics for Liberal Arts Majors* Three Credit Hours
Each Semester

Prerequisite or corequisite for PHYS 203: PHYS 253

Prerequisite for PHYS 204: PHYS 203 and PHYS 253

Prerequisite or corequisite for PHYS 204: PHYS 254

This course presents physics in a manner suitable for students who do not have a strong background in mathematics. The course is designed primarily to help the non-scientist act in an informed way in today's technically oriented society. Topics covered in the two-semester course include mechanics, thermodynamics, electromagnetism, optics, and modern physics.

Lecture: three hours.

PHYS 205 and PHYS 206 *Physics for Biology and Premedicine* Three Credit Hours
Each Semester

Prerequisites for PHYS 205: MATH 105 and MATH 106 or MATH 106 and MATH 107

Prerequisite or corequisite for PHYS 205: PHYS 255

Prerequisite for PHYS 206: PHYS 205 and PHYS 255

Prerequisite or corequisite for PHYS 206: PHYS 256

Required of all students majoring in biology or chemistry (B.A.)

A course designed to stress the principles and unifying concepts of classical and modern physics with emphasis directed toward biological applications. General topic headings covered in this course include kinetics and dynamics, heat, wave motion, electricity and magnetism, optics, and nuclear physics.

Premedical, pre dental, and preveterinary students, as well as biological science majors, will find this course particularly useful in preparing for careers.

Lecture: three hours.

PHYS 210, PHYS 211, and PHYS 212	<i>Physics for Engineers and Physical Scientists</i>	Three Credit Hours Each Semester
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Prerequisite for PHYS 210: MATH 131 (May be taken concurrently with MATH 131 with permission of the heads the student's major department and the Department of Physics.)

Prerequisite or corequisite for PHYS 210: PHYS 260

Prerequisites for PHYS 211 or PHYS 212: PHYS 210 and PHYS 260

Prerequisite or corequisite for PHYS 211: PHYS 261

Prerequisite or corequisite for 212: PHYS 262

Calculus-based introductory physics sequence. Kinematics, dynamics, electricity and magnetism, wave motion and sound, fluid statics and dynamics, thermodynamics, optics, and modern physics covered with no assumption of prior knowledge of physics.

Lecture: three hours.

PHYS 253 and PHYS 254	<i>Physics Laboratory for Liberal Arts Majors</i>	One Credit Hour Each Semester
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Prerequisite or corequisite for PHYS 253: PHYS 203

Prerequisite or corequisite for PHYS 254: PHYS 204

These laboratories are designed to correlate with the lecture material in PHYS 203 and PHYS 204, respectively. The experiments are designed to illustrate and emphasize the physical phenomena discussed in the corresponding lecture courses.

Laboratory reports stress writing to learn.

Laboratory: two hours.

PHYS 255 and PHYS 256	<i>Physics Laboratory for Biology and Premedicine</i>	One Credit Hour Each Semester
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Prerequisite or corequisite for PHYS 255: PHYS 205

Prerequisite or corequisite for PHYS 256: PHYS 206

Required of all students majoring in biology or chemistry (B.A.)

It is intended that the experiments in these laboratories follow the lecture material in PHYS 205 and PHYS 206, respectively. Laboratory technique and report writing will be emphasized. The experiments are arranged to correlate with the physical principles discussed in the corresponding lecture courses.

Laboratory: two hours.

PHYS 260, PHYS 261, *Physics Laboratory for Engineers* One Credit Hour
and PHYS 262 *and Physical Scientists* Each Semester

Prerequisite or corequisite for PHYS 260: PHYS 210

Prerequisite or corequisite for PHYS 261: PHYS 211

Prerequisite or corequisite for PHYS 262: PHYS 212

Required of all students majoring in chemistry, engineering, mathematics, and physics.

The laboratories parallel and supplement the lecture material in PHYS 210, PHYS 211, and PHYS 212, respectively. Experiments utilize much modern equipment including microwave apparatus, oscilloscopes, spectrometers, etc. All areas of basic physics are covered, including measurement, statics, linear and rotational dynamics, wave phenomena, sound, light, thermodynamics, electricity, and magnetism. Emphasis is placed on proper experimental technique, error analysis, and technical report writing.

Laboratory: two hours.

PHYS 301 *Biological Physics* Three Credit Hours

Prerequisites: PHYS 206 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

The applications of physics to the processes occurring in living systems. Among the topics to be discussed will be bioenergetics, radiation, biophysics, sensory biophysics, and bioelectricity. Attention also will be given to biomedical instrumentation.

Lecture: three hours.

PHYS 307 *Electronic Instrumentation* Three Credit Hours

Prerequisites: PHYS 206 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

Corequisite: PHYS 357

Required of all physics juniors; open to other science majors.

Brief review of DC and AC circuits. Introductions to theory and applications of solid-state diodes, transistors and other semiconductors, amplifiers, waveform generators, operational amplifiers, transducers, and digital electronics.

Lecture: three hours.

PHYS 308 *Optics* Three Credit Hours

Prerequisites: PHYS 206 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

Required of all physics juniors; open to others.

Principles of geometrical and physical optics presented with attention to engineering applications. Topics covered include geometrical imaging, a-b ray analysis, fiber optics, interferometry, thin film optical filters, and polarization. Matrix methods are applied to lens systems, thin films, and polarization.

Lecture: Three hours.

PHYS 313 *Modern Physics* Three Credit Hours
Prerequisites: PHYS 106 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

Required of all physics juniors; open to others with the permission of the instructor. A continuation of the 210, 211, 212 physics sequence.

The fundamental experiments and their interpretation that led to the development of relativity and quantum mechanics from classical physics.

Lecture: three hours.

PHYS 315 and PHYS 316 *Analytical Mechanics* Three Credit Hours
Each Semester

Prerequisites: PHYS 212 and PHYS 262; MATH 231

Required of all physics juniors; open to others.

Statics and dynamics of rigid bodies, Lagrangian and Hamiltonian dynamics, collision kinematics, central-force motion, oscillating systems, introduction to relativity.

Lecture: three hours.

PHYS 320 *Mathematical Physics* Three Credit Hours

Prerequisites: PHYS 212 and PHYS 262; MATH 231

Required of all physics juniors; open to mathematics majors.

Emphasis on mathematical methods of theoretical physics. Topics may include coordinate transformations, vector calculus techniques, special functions, definite integrals, approximations, numerical methods of data reduction, eigenvalue problems, boundary-value problems, representation theory, perturbation theory.

Lecture: three hours.

PHYS 357 *Electronic Instrumentation Laboratory* One Credit Hour

Corequisite or prerequisite: PHYS 307

Required of all physics majors. Open to others.

Laboratory parallels and supplements lecture material in PHYS 307.

Laboratory: two hours.

PHYS 358 *Optics Laboratory* One Credit Hour

Corequisite or prerequisite: PHYS 308

Required of all physics majors. Open to others. Laboratory parallels and supplements lecture material in PHYS 308.

Laboratory: two hours.

PHYS 403 and *Electricity and Magnetism* Three Credit Hours
PHYS 404 Each Semester

Prerequisites: PHYS 212; MATH 231

Prerequisite or corequisite: PHYS 320

Required of all physics seniors, open to others.

The electrostatic field and its effect on matter, the properties of magnetic fields and magnetic materials, electromagnetic effects, vector potentials, displacement currents, Maxwell's equations, Lorentz force on particles, periodic currents.

Lecture: three hours.

PHYS 405 and *Quantum Mechanics*
PHYS 406

Three Credit Hours
Each Semester

Prerequisites: PHYS 308, PHYS 313, PHYS 316

Prerequisite or corequisite: PHYS 320

Required of all physics seniors, open to others.

An introductory course in quantum mechanics with emphasis on both physical principles and mathematical techniques. Stress is placed on understanding how quantum mechanics is used in explaining the behavior of physical systems.

Lecture: three hours.

PHYS 409 *Intermediate Optics*

Three Credit Hours

Corequisite or Prerequisite: PHYS 308 and MATH 232

This course is a continuation of Optics PHYS 308. It develops the Fourier analysis approach to physical optics. Topics covered include the optical transfer function, the wave theory of aberrations, spatial filtering, holography and applications, fiber optics, and nonlinear optics.

Lecture: three hours.

PHYS 410 *Thermodynamics*

Three Credit Hours

Prerequisites: PHYS 206 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

Required of all physics seniors; open to others.

Principles of thermodynamics presented with attention to engineering, chemical, and biological applications. First and Second Laws of Thermodynamics, especially as applied to closed hydrostatic systems and open steady-flow systems. Concepts of internal energy, heat flow, enthalpy and entropy. Perfect gas processes. Carnot cycle for heat engines, heat pumps, refrigerators. Power output; mass flow equations; quality factor for mixed systems.

Lecture: three hours.

PHYS 415 *Special Topics in Physics*

Three Credit Hours

Prerequisites: Permission of instructor.

Topics may vary by semester according to student interest and availability of instructor. The subject for a semester will be chosen from such topics as space physics, special relativity, and solid state physics.

Lecture: three hours.

PHYS 416 *Advanced Topics in Physics*

Three Credit Hours

Prerequisites: Permission of instructor.

Similar to PHYS 415. The subject for a semester will be chosen from such

advanced topics as group theory in quantum mechanics, magnetic resonance, and plasma physics.

Lecture: three hours.

PHYS 419 *Research Planning* Two Credit Hour

Required of all physics seniors.

An outstanding recent development in physics is chosen by one or more students and studied intensively.

Lecture: one hour

Laboratory: two hours.

PHYS 420 *Senior Research Project* Three Credit Hours

Prerequisite: PHYS 419

Required of all physics seniors.

The project started in PHYS 419 (Research Planning) is completed to include a written thesis and an oral presentation.

Lecture: one hour.

Laboratory: four hours.

PHYS 451 *Advanced Laboratory Physics* Two Credit Hours

Required of all physics seniors. Experiments selected from famous fundamental measurements.

Laboratory: four hours.

Astronomy Course Descriptions

ASTR 201 *Introduction to Astronomy:
Sun and Planets* Three Credit Hours

A descriptive introduction to the Universe. Our Sun and its solar system; the Earth and the other planets; asteroids; comets. Practical observational astronomy. Planetary discoveries made by space craft. Life in the universe.

Lecture: two hours.

Laboratory: two hours.

ASTR 202 *Introduction to Astronomy:
Stars and Galaxies* Three Credit Hours

The universe outside the solar system, the sun as a typical star, the Milky Way and other galaxies, pulsars, quasars, and black holes are studied.

Lecture: two hours

Laboratory: two hours.

ASTR 412 *Stellar and Galactic Astrophysics* Three Credit Hours

Prerequisites: PHYS 211 and MATH 132

The structures, atmospheres, dynamics, and evolutions of stars. The techniques of stellar abundance analysis and spectral classification. The reduction, eigenvalue problems, boundary-value problems, representation theory, perturbation theory.

Lecture: three hours.

Department of Political Science

Department Head: Boykin

Professors: Baker, Benson, Steed, Boykin, Moreland, Davis

Associate Professor: Feurtado

Assistant Professors: Rounds, Britz

The Department of Political Science offers a flexible major which permits each student to concentrate his study in the area of his interest while at the same time affording him an opportunity to obtain a broad liberal arts education that will enrich his life, acquaint him with the rights and responsibilities of citizenship, and prepare him for a satisfying career.

The course of study for students majoring in Political Science prescribes a set of core courses to introduce the student to the discipline. In addition, each major must select one of the following departmental subfields for specialization:

- A. American Government and Politics.
- B. International Politics and Military Affairs.
- C. Pre-Law and Criminal Justice.

The discipline of Political Science seeks to describe and explain political phenomena, including political institutions, the political process, political behavior, and contemporary political issues. The student is afforded an opportunity to obtain a broad knowledge of both foreign and domestic political systems. In addition, Political Science also studies the relationships of people with their government, including the rights and responsibilities of citizens.

The Political Science program at The Citadel provides for its majors a broad understanding of political phenomena, enhanced by opportunities for study in the related disciplines of Economics, History, Sociology, and Anthropology. As the central element of a general education, Political Science provides preparation both for graduate education and for useful and satisfying careers. The majority of students interested in pre-law and in law enforcement in general choose Political Science as their major subject area. The major has especially strong appeal for those who anticipate careers in government, particularly in the For-

eign Service, in public administration, in the military generally, and in both civilian and military intelligence agencies. The major also prepares students for graduate work in the social sciences. The Political Science curriculum is thus designed to be responsive to a variety of interests; however, a large proportion of the department's majors are interested in pre-law or law enforcement or are preparing for military service.

The Department of Political Science is also pleased to offer courses both in Sociology and Anthropology; some of which are incorporated in the Law and Criminal Justice subfield of the Political Science curriculum.

Major Requirements

The Political Science major consists of fourteen courses (42 credit hours) within the department. In addition, the major establishes certain distributional requirements outside the department, and it provides for six elective courses which the student may use as he chooses. The complete course of study is presented in the Courses of Study section of this catalogue.

The fourteen courses required for a major in Political Science are distributed as follows: six core courses, five subfield courses, and three Political Science electives.

First, each student is required to complete a specified core of six courses which are scheduled throughout the four years of the major:

PSCI 101	Introduction to Political Science	(fall, fr. yr.)
PSCI 102	American National Government	(spring, fr. yr.)
PSCI 231	International Politics	(fall, soph. yr.)
PSCI 232	Comparative Politics	(spring, soph. yr.)
PSCI 392	Political Theory	(spring, jr. yr.)
PSCI 462	Constitutional Law: Civil Rights and Liberties.	(fall, sr. yr.)

Second, no later than the beginning of the fall semester of the junior year, each major must select one of the department's subfields for course concentration during the junior and senior years. The three subfields are Subfield A: American Government and Politics, Subfield B: International Politics and Military Affairs, and Subfield C: Pre-Law and Criminal Justice. Each major must complete five courses within one subfield of his choice. Three of these courses are specifically required; the remaining two courses must be selected from the list of subfield electives as indicated below.

Third, to complete the required fourteen courses for major, each student must also complete three additional Political Science courses (PSCI), two of which must be chosen from the American Government and Politics subfield. The third must be either the Senior Research Project or an additional Political Science

elective.

All courses within a subfield are open both to majors in other departments and to Political Science majors who are concentrating in one of the other two subfields. Subfield requirements and electives are listed below.

Subfield A: American Government and Politics

JUNIOR YEAR

First Semester

American Parties & Politics, PSCI 301
 Approved (History) Elective
 American Politics Elective
 Biology, Chemistry, or Physics
 BADM 201
 ROTC

Second Semester

Urban Politics, PSCI 302
 Approved (History) Elective
 Political Theory, PSCI 392
 Biology, Chemistry, or Physics
 Elective
 ROTC

SENIOR YEAR

First Semester

Pol. Issues & Public Policy, PSCI 401
 American Politics Elective
 Constitutional Law, PSCI 462
 Elective
 Elective
 ROTC

Second Semester

American Politics Elective
 Departmental Elective
 Departmental Elective
 Elective
 Elective
 ROTC

Required:

PSCI 301 American Parties and Politics
 PSCI 302 Urban Politics
 PSCI 401 Political Issues and Public Policy

Subfield Electives (those selecting this subfield must complete at least four electives chosen from the following):

PSCI 303 State and Local Government
 PSCI 304 American Political Thought
 PSCI 305 American Presidency
 PSCI 306 Legislative Process
 PSCI 307 Southern Politics
 PSCI 308 Public Opinion
 PSCI 309 Religion and Politics
 PSCI 393 Scope and Methods in Political Science
 PSCI 396 Politics and the Media
 PSCI 402 Politics of Bureaucracy

- PSCI 403 Topics in American Government and Politics
 PSCI 499 Internship

Subfield B: International Politics and Military Affairs

JUNIOR YEAR

First Semester

- PSCI 331 or PSCI 343
 Approved (History) Elective
 American Politics Elective
 Biology, Chemistry, or Physics
 BADM 201
 ROTC

Second Semester

- Nat. Security Pol., PSCI 332
 Approved (History) Elective
 Political Theory, PSCI 392
 Biology, Chemistry, or Physics
 Elective
 ROTC

SENIOR YEAR

First Semester

- Am. Foreign Relations, PSCI 431
 American Politics Elective
 Constitutional Law, PSCI 462
 Elective
 Elective
 ROTC

Second Semester

- Int. Politics Elective
 Int. Politics Area Elective
 Departmental Elective
 Elective
 Elective
 ROTC

Required:

- PSCI 331 International Law or PSCI 343 Introduction to Non-Western Studies
 PSCI 332 National Security Policy
 PSCI 431 American Foreign Policy

Subfield Electives (those selecting this subfield must complete at least two electives chosen from any of the American Government and Politics courses listed above plus two subfield electives chosen from the following, one of which must be an area course):

- PSCI 331 International Law
 PSCI 333 International Organization
 PSCI 334 Problems in International Law & Organization
 PSCI 335 Comparative Foreign and Defense Policies
 PSCI 336 Russian Affairs
 PSCI 337 Far Eastern Affairs
 PSCI 338 Southeast Asian Affairs
 PSCI 339 Middle Eastern Affairs
 PSCI 340 Latin American Affairs
 PSCI 341 African Affairs
 PSCI 342 Political Ideology and Violence

- PSCI 343 Introduction to Non-Western Studies
- PSCI 393 Scope and Methods in Political Science
- PSCI 402 Politics of Bureaucracy
- PSCI 443 Topics in International Politics
- PSCI 499 Internship

Subfield C: Pre-Law and Criminal Justice

JUNIOR YEAR

First Semester

- Law & Legal Process, PSCI 361
- Approved (History) Elective
- American Politics Elective
- Biology, Chemistry, or Physics
- BADM 201
- ROTC

Second Semester

- Crim. Justice Proc., PSCI 362
- Approved (History) Elective
- Political Theory, PSCI 392
- Biology, Chemistry, or Physics
- Elective
- ROTC

SENIOR YEAR

First Semester

- Constitutional Law, PSCI 462
- Law & Crim. Justice Elective
- American Politics Elective
- Elective
- Elective
- ROTC

Second Semester

- Constitutional Law, PSCI 461
- Law & Crim. Justice Elective
- Departmental Elective
- Elective
- Elective
- ROTC

Required:

- PSCI 361 Law and Legal Process
- PSCI 362 Criminal Justice Process
- PSCI 461 Constitutional Law: Powers of Government

Subfield Electives (those selecting this subfield must complete at least two electives chosen from any of the American Government and Politics courses listed above plus two subfield electives chosen from the following):

- PSCI 304 American Political Thought
- PSCI 331 International Law
- PSCI 393 Scope and Methods in Political Science
- PSCI 402 Politics of Bureaucracy
- PSCI 463 Topics in Law and Criminal Justice
- PSCI 499 Internship
- SOCI 201 Introduction to Sociology
- SOCI 302 Criminology
- ENGL 411 Writing in the Professions

BADM 211 Accounting Principles and Practice

Electives not designated by subfield: The following courses will meet no subfield requirements:

- PSCI 394 Contemporary Political Analysis
- PSCI 492 Topics in Political Philosophy and Theory
- PSCI 498 Senior Research Project

Minor in Non-Western Studies

Objectives:

The minor in Non-Western Studies is designed to allow students to develop a multidisciplinary, directed course of study through which he will attain a well-rounded understanding of a regional (Asia, Middle East, Africa, Latin America) or functional (e.g., development, revolution) area.

Competencies, Knowledge, or Skills to be Achieved:

In addition to the before-mentioned benefits, students will have an opportunity to develop keener insight and appreciation for diversity. The current curriculum is highly Eurocentric; this program will not only allow minority students to learn about their origins, it will (perhaps more importantly) engage Euro-American students to widen their horizons. In addition, this specialization will prove especially beneficial for the student pursuing a graduate degree in such areas as International Business, International Studies, Comparative Literature, History, etc. It will also distinguish students entering military or other government service.

No students are excluded from pursuing this minor. Students may not, however, use any course toward satisfying both the minor requirement and a specific or area requirement in their major.

Structure of the Minor:

1. Required Courses

Foreign Language through the 202 level (equivalent to 12 hours); Introduction to Non-Western Studies (PSCI 343) (3 hours)

2. Electives

Four of any of the below from at least two disciplines:

HIST 417	PSCI 337	GEOG 311	BADM 412
HIST 451	PSCI 338		
HIST 461	PSCI 339	LANG 303*	
HIST 474	PSCI 340	LANG 304*	
HIST 477	PSCI 341	LANG 320*	
HIST 489	PSCI 342		
	PSCI 433	ANTH 202	

Other: relevant Independent Study in any discipline; approved Senior Research Project or Internship; any relevant course taught by departments as a Special Topic; any relevant literature and/or language course (Asian, African, Latin American, or Middle East).

*FREN, GERM, RUSS, or SPAN as appropriate.

3. Projected Course of Study:

Students will be required to file a declaration of intent with the Director of the program by the end of the first semester of the junior year. This declaration will outline the projected course of study and will be approved by the Director. In addition to approving this projected course of study, the Director will assume responsibility for publicizing the program and for monitoring each student's progress toward fulfilling the requirements of the minor; in this latter capacity, the Director will be responsible for verifying that the student has met the requirements of the minor and for notifying the Records Office to that effect.

Total Credit Hours Required—15 (plus 12 of language)

Minor in American Politics: Democracy and the Political Process

Objectives:

This minor is designed to provide students with an understanding of the institutions and processes involved in the formulation of demands made on the American political system and the responsiveness of the authorities in the system to these demands.

Competencies, Knowledge, or Skills to be Achieved:

Through the study of topics such as the formulation and expression of public opinion, the effectiveness with which political parties create and maintain broad-based governing coalitions, and the fidelity with which students should develop a solid grasp of the linkages between public opinion and public policy. Since democratic theory assumes the existence of this linkage, students completing the minor should have a solid understanding of the practice of American democracy. Since a number of courses in the minor require the quantitative analysis of data, students should also deepen their knowledge of the methods of the social sciences. The requirement that papers and reports be submitted should enhance mastery of the English language.

This minor is not approved for students majoring in Political Science

Structure of the Minor:

1. *Required Courses*

PSCI 301 American Parties and Politics

PSCI 308 Public Opinion

PSCI 305 American Presidency or PSCI 306 Legislative Process

2. *Electives (choose two)*

- PSCI 304 American Political Thought
- PSCI 305 American Presidency or PSCI 306 Legislative Process
- PSCI 307 Southern Politics
- PSCI 309 Religion and Politics
- PSCI 393 Scope and Method of Political Science
- PSCI 396 Politics and the Media
- PSCI 401 Political Issues and Public Policy
- PSCI 403 Topics in American Government and Politics

Total Credit Hours Required—15

Minor in International and Military Affairs

Objectives:

This minor is designed to introduce students to the field of international and military affairs and provide them with a greater understanding of the international environment in which individuals, states, and organizations operate. The minor will include an introduction to international and comparative politics as well as at least one regional area of the international system. The program's flexibility allows students to expand their introduction to this topic through the completion of two electives in regional studies, macro-based political views of the international system, international economics, national security, foreign policy, or some combination of these categories.

Competence, Knowledge, or Skills to be Achieved:

The minor will require students to acquire and apply critical analytical skills in order to achieve an understanding of the international system and its complex array of components. The required courses in international and comparative politics require students to consider the functions and components of the international system as well as the ideological and political differences between individuals, states, and organizations which comprise this system. A regional course requirement presents students with a more detailed analysis of how other states govern themselves and operate within the international system. The electives allow students to apply their newly developed tools for international and military affairs analysis to other geographical regions, macro-based political issues such as international law or organization, or international economics. Critical thinking and systematic analysis in the required courses and electives will present students with these tools for further dissection of the international system, allow a greater appreciation for the complex world we live in, and prepare them for military, political, legal, or business careers on an ever increasing interdependent globe.

This minor is not approved for students majoring in Political Science.

Structure of the Minor:

1. Required Courses

- a. PSCI 231 International Politics

- b. PSCI 232 Comparative Politics
- c. One Regional Course (see list)
- 2. *Electives (choose two)*
 - BADM 320 International Business
 - BADM 412 International Economics
 - PSCI 331 Introduction to International Law
 - PSCI 332 National Security Policy
 - PSCI 333 International Organization
 - PSCI 334 Problems in International Law and Organization
 - PSCI 335 Comparative and Defense Policies
 - *PSCI 336 East European and Central Asian Affairs
 - *PSCI 337 Far Eastern Affairs
 - *PSCI 338 Southeast Asian Affairs
 - *PSCI 339 Middle East Affairs
 - *PSCI 340 Latin American Affairs
 - *PSCI 341 African Affairs
 - PSCI 342 Political Ideology and Violence
 - PSCI 343 Introduction to Non-Western Studies
 - PSCI 431 American Foreign Relations
 - PSCI 443 Topics in International Politics

*Regional Course

Total Hours Required—15

Minor in Pre-Law and Criminal Justice

Objectives:

This minor is designed to introduce students in a systematic way to the American systems of civil and criminal justice, to provide an introduction to law and the legal system for students who are considering careers in law or criminal justice, and to provide an opportunity for students to undertake advanced law-related courses, grounded in a basic understanding of law and the criminal justice system.

Competencies, Knowledge, or Skills to be Achieved:

The minor introduces students to legal reasoning, to case analysis, and to legal terms and citations as well as theoretical matters. Aside from an understanding of the nature of the legal process, the minor seeks to develop each student's capabilities for critical thinking and systematic analysis.

This minor is not approved for students majoring in Political Science

Structure of the Minor:

1. Required Courses

- PSCI 361 Law and Legal Process
- PSCI 362 Criminal Justice Process
- PSCI 462 Constitutional Law: Civil Rights and Liberties

2. Electives (choose two)

- PSCI 331 International Law
- PSCI 392 Political Theory
- PSCI 402 Politics of Bureaucracy
- PSCI 461 Constitutional Law: Powers of Government
- PSCI 463 Topics in Law and Criminal Justice
- PSCI 499 Internship
- SOCI 201 Introduction to Sociology
- SOCI 320 Criminology
- ENGL 411 Writing in the Profession

Total Credit Hours Required—15

Political Science Course Descriptions

- PSCI 101 *Introduction to Political Science* Three Credit Hours
Required of Political Science freshmen.

An introduction of politics in general and the discipline of Political Science in particular. Attention will be given to the basic questions and methods of Political Science with introductions to the subfields of the discipline.

- PSCI 102 *American National Government* Three Credit Hours
Required of Political Science freshmen.

A study of the American constitution background, the rights and liberties of persons, public opinion, voting behavior, political parties, interest groups, and the organization and roles of the Presidency, the Congress, and the national Judiciary in policy formation and implementation.

- PSCI 201 *American Politics and Government* Three Credit Hours
Prerequisite: Freshman mathematics sequence.
Satisfies Social Science Core Course requirement.

An introduction to American government that (1) provides students with a fundamental understanding of the structure and functions of American national governmental and political institutions, (2) develops a grasp of the importance of psychological, sociological, anthropological, and economic concepts and theories for the study of political life, and (3) develops a basic knowledge of research methods in the social sciences by the requirement that students conduct several analyses of voting behavior in presidential election contests. **This course is not open to political science majors.**

- PSCI 231 *International Politics* Three Credit Hours
Required of Political Science sophomores.

An analysis of the international system, of the nation-state, the role of power in international politics, and the goals and instruments of a nation's foreign policy.

PSCI 232 *Comparative Politics* Three Credit Hours
Required of Political Science sophomores.

An analysis of the various political systems in terms of institutions, structure, and function. Emphasis on the development of common criteria for the evaluation and comparison of these divergent systems.

PSCI 301 *American Parties and Politics* Three Credit Hours

An analysis of the dynamics of American Politics, with particular emphasis upon the factors entering into the formulation of public opinion, the role of interest groups, and the nature and operation of the party system.

PSCI 302 *Urban Politics* Three Credit Hours

A study of mass participation in urban political affairs, political parties on local level, the municipal reform movement, and the alternative approaches to the study of local political systems. Emphasis placed on the problems of local government in metropolitan areas.

PSCI 303 *State and Local Government* Three Credit Hours

A study of the role of the states in the American constitutional system, the institutional organization of state governments, and the relationships both between the states and the national government and among the various levels of state government.

PSCI 304 *American Political Thought* Three Credit Hours

A study of the basic political ideas which have developed in response to American constitutional, social, and economic conditions.

PSCI 305 *American Presidency* Three Credit Hours

A study of the modern Presidency with attention to its origin and its historical and constitutional development. Emphasis placed on the examination of the various roles and functions of the President and on an analysis of Presidents in action.

PSCI 306 *Legislative Process* Three Credit Hours

A study of the organizations and procedures of a legislative body with attention to its role in policy formation and its relationships with other parts as a political and governmental system.

PSCI 307 *Southern Politics* Three Credit Hours

A study of politics in the South in both regional and national contexts. Attention given to the politics of individual states and to an analysis of regional developments in such areas as race relations, political behavior, and party competition.

PSCI 308 *Public Opinion and Political Behavior* Three Credit Hours

A systematic analysis of political attitudes and behavior in relation to techniques of opinion survey design and analysis, voting behavior, and mechanisms for influencing options.

PSCI 309 *Religion and Politics* Three Credit Hours

A survey of the relationship between religion and politics in the U.S. with emphasis on political and theological cleavages between and within Protestantism, Roman Catholicism, and Judaism.

PSCI 331 *International Law* Three Credit Hours

A survey of international law as developed through treaties, customs, usages, and decisions of national and international tribunals.

PSCI 332 *National Security Policy* Three Credit Hours

An examination of the components of United States Security policy. Consideration given to factors, both internal and external, affecting national security.

PSCI 333 *International Organization* Three Credit Hours

A survey of the development and functions of international organizations, including the League of Nations, the United Nations, and other international agencies seeking to promote harmony among nations.

PSCI 334 *Problems in International Law
and Organization* Three Credit Hours

Prerequisite: PSCI 331 (International Law) or permission of course instructor
An advanced survey of the elements of the application of the basic principles of international law with additional attention given to selected problems of international organization. Emphasis given to an in-depth study of jurisdiction over aliens, state liability for official acts, international reclamations, the regulation of hostilities, treaties, war, and diplomacy.

PSCI 335 *Comparative Foreign and
Defense Policies* Three Credit Hours

A comparison and analysis of the foreign and defense policies of the Soviet Union, China, Britain, France, and selected Third World states, including an introduction to the defense strategies of the state and the relationship between foreign and defense policy in today's world.

PSCI 336 *Eastern European and Central Asian Affairs* Three Credit Hours

A selective survey of the European and Asian countries that were republics

of the late Soviet Union as well as the European nations that were members of the Soviet bloc.

PSCI 337 *Far Eastern Affairs* Three Credit Hours

A survey of China from 1911 to the present, with emphasis on the rise of communism in China, on the structure and operation of the Chinese People's Republic, and on contemporary Chinese foreign policy.

PSCI 338 *Southeast Asian Affairs* Three Credit Hours

A study of the development of selected countries in the area with emphasis on the problems of transition, ideological orientations, roles in the Soviet-American competition, and the importance of the area to the national interests and foreign policy of the United States.

PSCI 339 *Middle Eastern Affairs* Three Credit Hours

A survey of the Middle East with emphasis on the role of the area in a foreign policy of the United States.

PSCI 340 *Latin American Affairs* Three Credit Hours

A study of Latin American with emphasis on the traditional power elements and on the importance of the area to the foreign policy of the United States.

PSCI 341 *African Affairs* Three Credit Hours

An analysis of the politics and modernization of Africa with emphasis on the newly independent states of the continent with their political, cultural, demographic, and historical characteristics and on tribal factors influencing the process of modernization.

PSCI 342 *Political Ideology and Violence* Three Credit Hours

A study of selected contemporary ideologies and political violence, focusing on radical ideologies, revolutionary movements, and transnational violence, and other factors which have important political consequences both domestically and internationally.

PSCI 343 *Introduction to Non-Western Studies* Three Credit Hours

The core course for the Non-Western Studies minor, this course is a multidisciplinary introduction to the history and politics of the societies of Asia, Africa and Latin America. Attention is addressed to their experiences with colonialism and confrontations with modernization as well as to their current international relations.

PSCI 361 *Law and Legal Process* Three Credit Hours

A general survey of the American legal process (except for the criminal justice process) with emphasis on the nature and function of law, the organization of legal institutions (primarily the state and federal judiciaries), an introduction to civil law and the civil justice process, the roles of judges and lawyers, the judicial decision-making process, and the impact of court decisions.

PSCI 362 *Criminal Justice Process* Three Credit Hours

An introduction to the American criminal justice system, including the history and philosophy of law enforcement, the nature of crime in the United States, an introduction to the substantive criminal law, the nature and theory of the criminal justice process from arrest to corrections, and the roles of the major actors in that process (police, prosecutors, defense lawyers, judges, and corrections personnel).

PSCI 392 *Political Theory* Three Credit Hours

Required of political science juniors.

Major theoretical writing from the ancient Greeks to the present day; emphasis on a comparison of ideas and on the relationships between theories and contemporary problems.

PSCI 393 *Scope and Methods in
Political Science* Three Credit Hours

May be used as a subfield elective.

An examination of methods in the scientific study of political phenomena with emphasis given to the systematic study of politics and contemporary research problems in political science, including research design, data collection, data analysis, and computer applications.

PSCI 394 *Contemporary Political Analysis* Three Credit Hours

Cannot be used as a subfield elective.

An introduction to some of the more important approaches to contemporary political science. Emphasizes the importance of concept formation in developing general strategies for the study of political phenomena. Some of the approaches studied include group theory, politics as process, the power approach, systems theory, structural-functional analysis, communications theory, game theory, and the individualistic-psychological approaches.

PSCI 396 *Politics and the Media* Three Credit Hours

An examination of theories of communication, of the relationships between the various types of media and the political world, of the impacts of media on

political decision-making, and of political themes found in films, television, literature, and other media forms. Specific topics include the nature and impact of television journalism, the context and political themes of selected films and novels, and the political roles performed by electronic and other forms of media.

PSCI 401 *Political Issues and Public Policy* Three Credit Hours

An introduction to political analysis through consideration of important contemporary American political issues as they relate to public policy; attention given to specific issues as well as the policy process (formulation, implementation, and evaluation of policy).

PSCI 402 *Politics of Bureaucracy* Three Credit Hours

An introduction to the role of administration in the governmental process with emphasis on the principles of administrative control, personnel, and fiscal management.

PSCI 403 *Topics in American Government and Politics* Three Credit Hours

Prerequisite: PSCI 102 (American National Government) or permission of course instructor

Selected special topics or problems in the general area of American government and politics; offered periodically as the special interests of faculty and students permit.

PSCI 431 *American Foreign Relations* Three Credit Hours

A study of American foreign policy with emphasis on the institutions and processes in the making of foreign policy and on important problems and developments in the postwar years.

PSCI 433 *Topics in International Politics* Three Credit Hours

Prerequisite: PSCI 231 (International Politics) or permission of course instructor.

Selected special topics or problems in the general areas of international politics and military affairs; offered periodically as the special interests of faculty and students permit.

PSCI 461 *Constitutional Law: Powers of Government* Three Credit Hours

A study of the underlying and basic principles of the Constitution as reflected in the leading decision of the United States Supreme Court with special attention directed to judicial review as it has shaped the powers of Congress, the Presidency, and the federal Judiciary itself.

PSCI 462 *Constitutional Law: Civil Rights
and Liberties* Three Credit Hours

Required of political science seniors.

A study of the underlying and basic principles of the Constitution as reflected in the leading decisions of the United States Supreme Court with special attention directed to the Bill of Rights and the Thirteenth, Fourteenth, and Fifteenth Amendments.

PSCI 463 *Topics in Law and Criminal Justice* Three Credit Hours

Prerequisite: PSCI 361 (Law and Legal Process) or permission of course instructor.

Selected special topics or problems in the general areas of public law and legal process; offered periodically as the special interests of faculty and students permit.

PSCI 492 *Topics in Political Philosophy
and Theory* Three Credit Hours

Prerequisite: Political Theory, PSCI 392, or permission of the course instructor. Cannot be used as a subfield elective.

Selected special topics in the general area of political philosophy and theory; offered periodically as the interests of faculty and students permit.

PSCI 498 *Senior Research Project* Three Credit Hours

Required of all seniors as a prerequisite to graduation; an approved departmental elective may be substituted.

An independent research project resulting in a formal paper, the project must be approved by the department head in consultation with an appropriate member of the faculty who will supervise the project. Virtually any aspect of politics may be investigated. Especially recommended for those considering graduate or professional study.

PSCI 499 *Internship* Three Credit Hours

Prerequisite: permission of department head.

Internships with government and other agencies are offered to combine academic training with professional experience.

Sociology Course Descriptions

SOCI 201 *Introduction to Sociology* Three Credit Hours

The scientific study of principles and comparisons in society and culture as these relate to population and communities, behavior systems, group collectivity and structure, social change, and institutions.

SOCI 202 *Social Problems* Three Credit Hours

Analysis of deviant behavior and those factors affecting the disorganization of small groups, complex organizations, and societies.

SOCI 210 *Social Sciences and Social Life* Three Credit Hours

Satisfies Social Science Core Course requirement.

It is the purpose of this course to provide students with an introduction to the social sciences, sociology, and specially selected social science topics. Additionally, the research methods of sociology and its related social sciences will be emphasized. This course will study the theoretical aspects of the topics as well as the more practical aspects of high quality research. This course emphasizes the content knowledge of the subject (sociology) and the research methods and techniques appropriate to the subject.

SOCI 302 *Criminology* Three Credit Hours

A study of crime, its causes, conditions, prevention, and treatment; a presentation of theories and hypotheses, supported by concrete facts, designed to assure the student that the theories purposed are based upon realities and exact observations.

SOCI 304 *Minority Group Relations* Three Credit Hours

An examination of the substantive issues in the study of majority-minority group relations and social processes, and the cultural orientations which are associated with these issues.

SOCI 305 *Small Groups* Three Credit Hours

Open to juniors and seniors only.

A review of group theory and research. Primary attention centers upon the development and operation of group structure and the internal workings of small groups within a sociological context. Task groups established to accomplish some specific goal are also examined along with those factors which make for group productivity.

SOCI 306 *Population* Three Credit Hours

Size, growth, distribution, social and economic composition, and changes of the United States population; special topics include housing, religious affiliation, and political demography.

Anthropology Course Descriptions

ANTH 201 *General Anthropology* Three Credit Hours

Man's biological and cultural origins as studied by physical anthropologists,

archaeologists, and linguists.

ANTH 202 *Cultural Anthropology* Three Credit Hours

A comparative study of culture; habitat, technology, and economy; kinship and political organization; life cycles in primitive societies.

ANTH 303 *Physical Anthropology* Three Credit Hours

Open to juniors and seniors only.

An introduction to physical or bioanthropology. The course examines the process of human development along with a review of the basic principles of physical and behavioral evolution based on the fossil record and the changing ecological, culture, and social contacts.

ANTH 305 *Native North Americans* Three Credit Hours

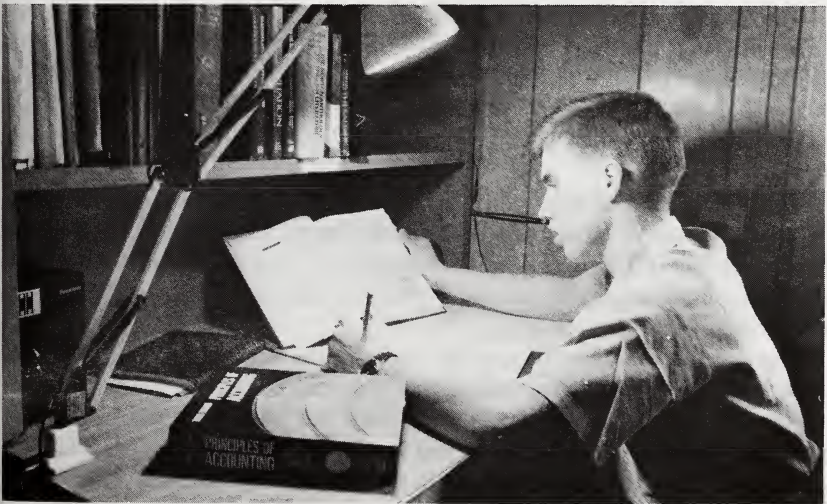
Open to juniors and seniors only.

A study of the society and culture of the North American Indian: environment; cultural adaptations; economic, political, and social organization and their influence upon the daily lives of people over the North American continent.

ANTH 307 *Man's Prehistoric Past* Three Credit Hours

Open to juniors and seniors only.

An introduction to archaeology which looks at kinds of prehistoric data and the methods used to obtain and interpret it. Attention will center upon the lives of hunters, food producers, and early community settlements.



Department of Psychology

Department Head: Finch

Professors: Bowman, Finch, Reilly

Associate Professors: Politano, Saylor, Lipovsky

Assistant Professors: Daugherty, Daine

The major in psychology is designed around a broad liberal education whereby the learnings in the humanities and the sciences are integrated through an emphasis on the study of human behavior. Students in psychology develop an approach to learning which combines an empirical, objective methodology built upon observational and statistical strategies with skill in discerning patterns across data which permits theory construction and analysis. Students who graduate from this major are expected to have the knowledge base and the data analysis skills which would support graduate study in any of the specialty areas of psychology. They also should be well prepared for employment in positions which require understanding and motivating others. Examples of such employment areas include positions in personnel work, social service and mental health agencies, law enforcement, and sales.

The major program in psychology, which leads to the Bachelor of Arts degree, consists of 39 hours of course work in psychology, including PSYC 201, PSYC 202, PSYC 203, PSYC 301, PSYC 302, PSYC 304, PSYC 305, PSYC 306, PSYC 403, PSYC 404, PSYC 405, PSYC 407, and PSYC 410. To obtain a departmental recommendation for graduate study, the psychology major must also take PSYC 420.

The department also offers elective courses and supportive services to majors in other academic disciplines. In cooperation with the Department of Education, the Department of Psychology offers two graduate degree programs, each leading to the Ed.S. degree in School Psychology and the M.Ed. in Community Counseling.

The department of Psychology also sponsors the Psychology Club, which is open to all students interested in the study of human behavior regardless of their major. The club seeks to stimulate and maintain interest in scholarship and service and to promote closer social and intellectual association among students.

Psi Chi, the national honor society in Psychology, has a Citadel chapter open

to undergraduate majors or minors with a 3.0 average who rank in the top third of their class. Psi Chi activities promote scholarship and research which prepare students for graduate school or other future endeavors in Psychology.

Minor in Psychology

Objectives:

The Psychology Department recognizes that a major in Psychology is not for everyone. However, students from many diverse fields and areas of interest (e.g., Business Administration, pre-Law, pre-Med, Education, Law Enforcement, and the Military) may benefit from more in-depth knowledge of the Behavioral Sciences. The minor in Psychology is designed to allow students maximum flexibility in choosing courses to complement their current major.

Competencies, Knowledge or Skills to be Achieved:

Students minoring in Psychology have the opportunity to enhance their critical thinking and problem-solving skills. Students will also develop the ability to review the scientific literature (using computer assisted technology) and communicate their findings through multiple media (oral presentations, written papers, and paper presentations at conferences). The curriculum for the minor has been arranged in such a fashion as to maximize the flexibility needed to match the student's individual career goals while at the same time ensuring a knowledge of the broad areas of Psychology.

This minor is not approved for students majoring in Psychology.

Structure of the Minor:

1. Required Courses: (12 credit hours)

PSYC 203 Research Design in Psychology*

PSYC 301 Experimental Psychology

*Students who have MATH 160, may substitute an additional psychology for Research Design (PSYC 203)

One course from each grouping:

Cluster A (PSYC 304) Abnormal Psychology

(PSYC 306) Theories of Personality

Cluster B (PSYC 403) Learning and Motivation

(PSYC 405) History and Systems of Psychology

(PSYC 302) Physiological Psychology

2. Electives: (6 credit hours)

Choose two:

(PSYC 404) Industrial/Organizational Psychology

(PSYC 202) Developmental Psychology

(PSYC 305) Social Psychology

Total Credit Hours Required—18

Psychology Course Descriptions

PSYC 201 *General Psychology* Three Credit Hours

Elective for sophomores, juniors and seniors.

An introduction to the scientific study of behavior; emphasis upon experimental investigation of such fields as perception, motivation, learning, emotions, physiology, and personality.

PSYC 202 *Developmental Psychology* Three Credit Hours

A study of the development of the individual from prenatal to senescent stages, emphasizing growth in intelligence, motor behavior, perception, cognition, socialization, and emotion. Empirical findings and theoretical interpretations in the study of human behavior will be explored.

PSYC 203 *Research Design in Psychology* Three Credit Hours

Prerequisite: PSYC 201

An introduction to descriptive and inferential statistics used in psychological experimentation. Particular emphasis is placed upon hypothesis testing by means of the t-test and randomized designs of the analysis of variance.

PSYC 209 *Psychology of Individual Behavior* Three Credit Hours

Formerly PSYC 309.

Prerequisite: Freshman mathematics sequence.

This course introduces students to the methodology of the social sciences. From a basic psychometric and experimental foundation, students will learn scholarly search strategies through CD-ROM databases and print indices. Reading, writing, and oral communication will be emphasized as students become better consumers of social scientific knowledge. The quest for knowledge about the human experience will be discussed within the context of scientific ethics.

PSYC 209 meets the Social Science Core course requirement. Not open to psychology majors.

PSYC 301 *Experimental Psychology* Three Credit Hours

Prerequisites: PSYC 201 and PSYC 203

Comprehensive treatment of research findings in experimental psychology in such areas as sensation and perception. Emphasizes the essential importance of rigorous hypothesis formulation and the design of experiments to test hypotheses.

PSYC 302 *Physiological Psychology* Three Credit Hours

The primary purpose of this course is to explore the role of biological factors in human experience and behavior. Knowledge and skills gained in Experimental Psychology will be used to develop a fundamental understanding of the structure and function of the nervous system and the endocrine system. Competence in locating and interpreting empirical literature on a wide array of topics related to physiological psychology will also be emphasized.

PSYC 304 *Abnormal Psychology* Three Credit Hours

Prerequisite: PSYC 201

A study of fundamental theory and research in the area of abnormal behavior. Emphasis is on symptoms, etiology, and treatment of psychopathology and behavior problems.

PSYC 305 *Social Psychology* Three Credit Hours

A study of the individual in relation to his social environment with special attention to group behavior, communication, conformity, leadership, aggression, and interpersonal attraction.

PSYC 306 *Theories of Personality* Three Credit Hours

A study of major contemporary theories of personality with special emphasis on the biological and psychological foundations and integrative aspects of personality.

PSYC 403 *Psychology of Learning* Three Credit Hours

Prerequisite: PSYC 201

A comprehensive and critical review of the experimental literature in the area of learning and motivation, including the major learning theories and the motivational determinants of behavior.

PSYC 404 *Industrial/Organizational Psychology* Three Credit Hours

Prerequisite: PSYC 201

Application of psychological principles to the world of work. Specific topics include concepts of work, job satisfaction, personnel selection, performance appraisal, human engineering, leadership, and organizational behavior.

PSYC 405 *History and Systems of Psychology* Three Credit Hours

Prerequisite: PSYC 201

Historical survey of psychology, emphasizing contributions of major "schools" of psychology, theories, their place in science, and current theoretical trends.

PSYC 407 *Psychological Testing* Three Credit Hours
 Prerequisite: PSYC 201

A survey of the theory and principles of psychological testing, demonstration and discussion of representative tests of intelligence, aptitude, achievement, interests, and personality.

PSYC 410 *Seminar in Contemporary Psychological Issues* Three Credit Hours

Required of all senior psychology majors; open to others with the permission of the instructor.

A study of selected critical issues in contemporary psychology, encompassing the various aspects of the discipline. Special emphasis will be given to integrating concepts, principles, and skills learned from earlier courses and related disciplines. Content in any semester to be determined by student needs.

PSYC 418 *Internship in Psychology* Three Credit Hours
 Prerequisite: Permission of department head

Internships providing student observation and participation in a psychologically oriented activity may be periodically offered to combine academic training with professional experience. Students will be expected to relate internship experiences to the psychological literature. Intended only for psychology majors.

PSYC 420 *Senior Research Project* Three Credit Hours
 Prerequisite: approval of department head

An independent research project culminating in a formal paper. Required of students planning graduate study and recommended for others. Approval for enrollment based on capability of applicant and the acceptance of a written proposal.

PSYC 463 *Special Topics in Psychology* Three Credit Hours
 Prerequisites: PSYC 201 or PSYC 209 and permission of Department Head

This course is designed to focus on a current problem, technique, or theory in the field of psychology.

The curriculum for the psychology major is based on a classic liberal education model in the field. Required courses provide a solid foundation, preparing students for graduate education or entry level employment. The field of psychology is much more diverse than can be fully reflected in our required curriculum, yet limited resources make a full slate of elective courses in psychology impossible. Through a single *special topics* course, the department can offer (on at least a bi-annual basis) courses that will expose students to the frontiers of the field while we maintain a focus on the mainstream of psychology through required courses. Non-majors, who have at least surveyed the field through PSYC 201 or who have been introduced to the social scientific process through PSYC 209, may also round out their curriculum with this course as a non-departmental elective.

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